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# The Index of Economic Well-being for Newfoundland and Labrador, 1981-2018

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# The Index of Economic Well-being for Newfoundland and Labrador, 1981-2018

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## Abstract

This report presents estimates of the Index of Economic Well-being (IEWB) and its four domains (consumption flows, stocks of wealth, economic equality and economic security) for Newfoundland and Labrador from 1981 to 2018. We find that the IEWB for Newfoundland and Labrador increased at an average annual rate of 1.75 per cent per year over the period. All four domains grew between 1981 and 2018, with the strongest growth in consumption and wealth. However, at the end of the period between 2014 and 2018, the IEWB along with the four domains deteriorated. Nevertheless, Newfoundland and Labrador enjoyed significant improvement between 1981 and 2018, especially compared to the other provinces. Newfoundland and Labrador achieved the fourth highest IEWB level of the ten provinces in 2018 and, most impressively, the highest growth between 1981 and 2018.

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# The Index of Economic Well-being for Newfoundland and Labrador, 1981-2018

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## Executive Summary

In 1998, the Centre for the Study of Living Standards (CSLS) released the first estimates of the Index of Economic Well-being for Canada (Osberg and Sharpe, 1998), which is a composite index based on a conceptual framework developed by Osberg (1985). Over the past decade, the CSLS has extended the geographical coverage of the Index to the Canadian provinces and to major OECD countries and has made a number of methodological changes to the Index.

The IEWB is comprised of four domains of economic welfare: per-capita consumption, per-capita wealth, economic equality, and economic security. These four domains reflect economic well-being in both the present and the future, and account for both average access to economic resources and the distribution of that access among members of society. By basing the IEWB on data from each of these domains, we attempt to capture the multifaceted nature of economic well-being. Our domain approach also allows individuals to assign weights in accordance with their value judgments (e.g. consumption versus economic equality).

This report presents updated estimates of the IEWB for Newfoundland and Labrador over the 1981 to 2018 period, with a particular emphasis on developments post-2000. The report outlines trends in the four domains of economic well-being that make up the IEWB. This report finds that economic well-being in Newfoundland and Labrador has improved significantly between 1981 and 2018.

## Trends in the Index of Economic Well-being, 1981-2018

Since 1981, the IEWB for Newfoundland and Labrador has enjoyed considerable growth. The overall IEWB rose 0.270 points from 0.301 in 1981 to 0.571 in 2018. This improvement amounts to an impressive 89.9 per cent change over the period, or growth of 1.75 per cent per year. However, growth of the IEWB fluctuated over the period:

- **1981-2000:** The IEWB for Newfoundland and Labrador grew 1.87 per cent per year from 0.301 in 1981 to 0.427 in 2000.

- **2000-2018:** The IEWB grew 1.62 per cent per year from 0.427 in 2000 to 0.571 in 2018. The IEWB experienced faster growth in the period before 2000.
- **2000-2008:** The IEWB increased 4.99 per cent per year from 0.427 in 2000 to 0.631 in 2008. The IEWB saw the fastest growth in this sub-period, likely due to growth in the mining and oil and gas extraction sector, on which the province's economy largely depends.
- **Post-2008:** Following 2008, however, the IEWB deteriorated. Between 2008 and 2018, the IEWB declined at a rate of 0.99 per cent per year. This deterioration reflects the collapse in oil prices during the 2008 recession. Between 2014 and 2018, the IEWB for Newfoundland and Labrador experienced the most severe deterioration at 1.36 per cent per year.

## Trends in the Four Domains of the Index of Economic Well-being, 1981-2018

The overall increase in economic well-being was largely driven by robust growth in consumption and stocks of wealth. The domains of economic equality and economic security also improved, though less significantly than the other two domains.

- The index of consumption had the highest growth among the components of the IEWB. The scaled consumption domain increased 0.570 points or 5.72 per cent per year from 0.083 in 1981 to 0.653 in 2018. This growth was driven primarily by significant increases in personal consumption and government expenditures over the period. However, due to a decrease in the value of unpaid work and increase in regrettable expenditures after 2008, the consumption domain experienced much slower growth in the 2000-2018 sub-period compared to the 1981-2000 sub-period (2.57 per cent versus 5.72 per cent).
- The wealth domain had the second highest growth among the components of the IEWB. The index of wealth increased 0.224 points or 1.30 per cent per year from 0.366 points in 1981 to 0.590 points in 2018. However, growth in the wealth domain was concentrated in the 1981-2000 sub-period, due to volatility in the stock of natural resources. Between 2008 and 2018, the stock of natural resources deteriorated 17.65 per cent per year, reflecting the plunge in oil prices during this period. Given the province's dependence on natural resources, and more specifically oil, the wealth domain in Newfoundland and Labrador fell at a rate of 4.31 per cent per year from 2008 to 2018.
- The index of economic equality grew by 0.161 points or 0.96 per cent per year from 0.378 in 1981 to 0.539 in 2018. This improvement was driven by developments in the

index of poverty, which in turn resulted from falls in Newfoundland and Labrador's poverty rate and poverty gap. In contrast, income inequality increased over the period.

- The index of economic security showed the least improvement of the IEWB components. The index of economic security rose 0.126 points or 0.79 per cent annually from 0.375 in 1981 to 0.502 in 2018, largely as a result from improvements in the risk imposed by illness (due to lower private medical expenditures as a share of income since 1981) and poverty in old age. However, the risk imposed by unemployment worsened over the period, which drove down the index of economic security for Newfoundland and Labrador.

In summary, all four domains improved between 1981 and 2018. The four domains also shared similar trends in growth across sub-periods. The indexes of consumption, wealth, and economic security experienced stronger growth in the 1981-2000 sub-period than the 2000-2018 sub-period. In contrast, economic equality deteriorated between 1981 and 2000 but improved between 2000 and 2018. All four domains had strong growth between 2000 and 2008, particularly the wealth domain. However, in the last sub-period, between 2014 and 2018, all domains deteriorated.

### **Rankings for the Index of Economic Well-being by Province, 1981-2018**

Newfoundland and Labrador enjoyed high rankings among the provinces for the IEWB in terms of both levels and growth (Exhibit 1). For the overall IEWB, Newfoundland and Labrador ranked fourth of the ten provinces. Newfoundland and Labrador was exceptionally strong in the index of wealth, ranking first. However, the province did not fare as well in the indexes of consumption, economic equality, and economic security, ranking seventh in all three domains. Most impressive were Newfoundland and Labrador's rankings for growth. Apart from the index of economic equality (in which the province ranked a strong fourth), Newfoundland and Labrador had the highest growth rates from 1981 to 2018 for the overall IEWB and indexes of consumption, wealth, and economic security. These findings indicate that economic well-being in Newfoundland and Labrador improved considerably between 1981 and 2018.

**Exhibit 1: Ranking by Index of Economic Well-being and its Components, Canada and the Provinces**

**Panel A: Levels**

Levels in 2018					
Rank	Index of Economic Well-being	Index of Consumption	Index of Wealth	Index of Economic Equality	Index of Economic Security
1	British Columbia	Alberta	Newfoundland and Labrador	Alberta	Alberta
2	Alberta	Ontario	British Columbia	New Brunswick	Saskatchewan
3	Ontario	British Columbia	Quebec	British Columbia	British Columbia
4	Canada	Canada	Ontario	Prince Edward Island	Canada
5	Newfoundland and Labrador	Nova Scotia	Canada	Quebec	Manitoba
6	Quebec	Manitoba	Manitoba	Canada	Quebec
7	Manitoba	Quebec	Saskatchewan	Ontario	Ontario
8	Saskatchewan	Newfoundland and Labrador	New Brunswick	Newfoundland and Labrador	Newfoundland and Labrador
9	New Brunswick	Saskatchewan	Alberta	Manitoba	New Brunswick
10	Nova Scotia	Prince Edward Island	Nova Scotia	Saskatchewan	Nova Scotia
11	Prince Edward Island	New Brunswick	Prince Edward Island	Nova Scotia	Prince Edward Island

**Panel B: Growth Rate**

Growth Rates, 1981-2018					
Rank	Index of Economic Well-being	Index of Consumption	Index of Wealth	Index of Economic Equality	Index of Economic Security
1	Newfoundland and Labrador	Newfoundland and Labrador	Newfoundland and Labrador	New Brunswick	Newfoundland
2	New Brunswick	New Brunswick	Quebec	Saskatchewan	Prince Edward Island
3	Prince Edward Island	Quebec	Ontario	Prince Edward Island	British Columbia
4	Quebec	Prince Edward Island	British Columbia	Newfoundland and Labrador	New Brunswick
5	Manitoba	Manitoba	Canada	Manitoba	Quebec
6	British Columbia	Ontario	Manitoba	Alberta	Manitoba
7	Nova Scotia	Canada	Nova Scotia	Quebec	Alberta
8	Canada	Nova Scotia	New Brunswick	Nova Scotia	Canada
9	Saskatchewan	British Columbia	Saskatchewan	British Columbia	Saskatchewan
10	Ontario	Saskatchewan	Alberta	Canada	Nova Scotia
11	Alberta	Alberta	Prince Edward Island	Ontario	Ontario

# The Index of Economic Well-being for Newfoundland and Labrador, 1981-2018<sup>1</sup>

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## I. The Index of Economic Well-being: Motivation and Framework

The literature on social indicators commonly, and correctly, asserts that there is more to ‘well-being’ than material prosperity. The IEWB agrees and argues, furthermore, that although access to economic resources plays a key role in overall well-being, there is more to *economic* well-being than money income. Although money income – specifically, real Gross Domestic Product (GDP) per capita - currently is the single most often mentioned statistic used to indicate economic progress, it is an inadequate measure of economic well-being. Our calculation of the IEWB is, therefore, intended to provide a better measure of trends in economic well-being, as part of “well-being” more broadly conceived.

The compilers of the national accounts have long protested that their attempt to measure in GDP the aggregate money value of marketed economic output was never intended as a full measure of economic well-being. Nevertheless, it has often been used as such, despite the fact that GDP accounting omits important aspects of individuals’ command over resources (for example, leisure time and longevity of life) and ignores the sustainability of aggregate consumption and the inequality and insecurity which individuals experience. In this paper, our calculation of the IEWB demonstrates that an alternative measure of “access to economic resources” is possible, plausible, and capable of making some difference.

However, we emphasize that in focusing on purely economic aspects of well-being, we do not intend to downplay the importance of non-economic dimensions of life for “well-being”, more broadly conceived. On the contrary, we think that some non-economic dimensions of life are too important to be combined with economic variables in an over-all index. We see, for example, political liberties such as freedom of speech and assembly as crucial for a broader conception of well-being. However, including non-economic issues in an aggregate well-being index along with economic variables would build in the implicit trade-off assumption that a little more income can always offset a little less in non-economic goods – and we reject that perspective. We hope instead to provide a better measure of “access to resources needed for a decent standard of living”. To this end, we place particular emphasis on sustainability and the

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<sup>1</sup> This report is based on a presentation made at Memorial University, St. John’s, Newfoundland and Labrador, September 5, 2019.

sensitivity of measures of aggregate “command over resources” to the omission or inclusion of measures of income distribution and economic security.

In our view, indices of societal well-being are calculated in the hope that they can help guide social decision-making. No individual needs any indices of societal well-being to evaluate the impact of a public policy decision on their own personal well-being. However, civil servants and politicians are called upon on a daily basis to answer questions such as “Would public policy X make Canada better off?” More infrequently, voters also have to think about the same issues. As long as some individuals care, some of the time, about societal well-being as well as caring about their own personal well-being, indices of societal well-being can be useful guides for decision-making.

In developing an Index of Economic Well-Being, based on four dimensions of economic well-being (consumption, wealth accumulation, economic equality, and economic security), this report attempts to construct better measures of effective consumption, economic security and societal accumulation. However, unlike other indices, we do not argue that the weights assigned to these dimensions of economic well-being are unique and that “Canada’s economic well-being” is a single, objective number. As individuals differ in their values, in our view it is not possible to define an objective index of societal well-being independent of the preferences of individuals. Because societal well-being has multiple component dimensions and because individuals differ in their subjective valuation of each dimension’s relative importance, individuals differ in their evaluations of social states. When well-informed groups are asked for their personal assessment of the relative importance of each of these four dimensions of well-being, the central tendency of the distribution of weights is reasonably close to our “base case” of equal weighting, but there is a large range of value preferences on each dimension.

Hence, one should think of each individual member of society as subjectively evaluating the objective data available to them and then coming to a personal conclusion about society’s well-being. And although many public policies have outcomes that cannot be measured in directly comparable units, as a practical matter, individuals often have to come to a summative decision in order to decide between policies – that is, have a way of “adding everything up” across conceptually dissimilar domains. Since individuals, particularly in democracies, participate in decisions that will affect the collectivity, they face the problem of coming to a subjective evaluation of social states. The motivation for constructing the IEWB is that they need organized, objective data if they are to do it in a reasonable way, so an index of society’s well-being can be useful in helping individuals to make these evaluations.

Indices of social well-being can best help individuals to come to reasonable answers about social choices if information is presented in a way that highlights the objective trends in major dimensions of well-being, and thereby helps individuals to come to summative judgments

without assuming that they all share exactly the same values. In our perspective, the purpose of index construction should be to assist individuals – e.g. as voters in elections and as bureaucrats in policy making – to think systematically about public policy, regardless of their personal value positions.

The logic of our identification of four components of well-being is that it recognizes both trends in average outcomes and in the diversity of outcomes, both now and in the future, as Exhibit 2 illustrates.

**Exhibit 2: Conceptual Framework for the Index of Economic Well-being**

<b>Concept</b>	<b>Present</b>	<b>Future</b>
<b>“Typical Citizen”/ “Representative Agent”</b>	Average flow of current income	Aggregate accumulation of productive stocks
<b>Heterogeneity in Experiences</b>	Distribution of potential consumption – income inequality and poverty	Insecurity of future incomes

When an average income flow variable like GDP per capita or average personal income is used as a summative index of well-being, the analyst is implicitly stopping in the first quadrant of Exhibit 2. He or she is assuming that the experience of a representative agent can summarize the well-being of society and that the measured income flow optimally weighs consumption and savings, so that one need not explicitly distinguish between present consumption flows and the accumulation of asset stocks which will enable future consumption flows.

However, society is composed of diverse individuals living in an uncertain world who typically “live in the present, anticipating the future”. Each individual’s estimate of societal economic well-being depends on both current consumption and on the importance they assign to future consumption – i.e. the proportion of national income saved for the future. GDP is a measure of the aggregate market income of a society. It does not reveal the savings rate, and there is little reason to believe that the national savings rate is automatically optimal. Indeed, if citizens have differing rates of time preference, any given savings rate will only be “optimal” from some persons’ points of view. Hence, a better estimate of the well-being of society should enable citizens to apply their differing values and allow analysts to distinguish between current consumption and the accumulation of productive assets which determines the sustainability of current levels of consumption.

Some individuals may also be concerned about the degree to which all citizens will share in prosperity – there is a long tradition in economics that “social welfare” depends on both average incomes and the degree of inequality and poverty in the distribution of incomes. Because the future is uncertain, and complete insurance is unobtainable (either privately or through the welfare state), individuals also care about the degree to which the economic future is secure for themselves and others.

If the objective of index construction is to assist public policy discussion, one must recognize that discussion can easily be overwhelmed by complexity when too many categories have to be considered simultaneously. We, therefore, do not adopt the strategy of simply presenting a large battery of indicators. However, as reasonable people may disagree in the relative weight they would assign to each dimension (e.g. some will argue that inequality in income distribution is highly important while others will argue the opposite), the IEWB is explicit and open about the relative weights assigned to components of well-being, rather than leaving them implicit and hidden. As well, for policy purposes it is not particularly useful to know only that well-being has gone “up” or “down”, without also learning which aspect of well-being has improved or deteriorated. We specify explicit weights to the components of well-being and test the sensitivity of aggregate trends to changes in those weights, in order to enable others to assess whether, based on their own personal values about what is important in economic well-being, they would agree with an overall assessment of trends in the economy.<sup>2</sup>

This report’s basic hypothesis – that a society’s economic well-being depends on total consumption and accumulation and on the individual inequality and insecurity that surround the distribution of resources – is consistent with a variety of theoretical perspectives. We, therefore, do not present here a specific, formal model. In a series of papers (Osberg and Sharpe, 1998, 2002, and 2005) we have already described the details of the calculation of the four components or dimensions of economic well-being:

- effective per capita consumption flows – which include consumption of marketed goods and services, government services, and adjustment of effective per-capita consumption flows for household production, changing household economies of scale, leisure, regrettable expenditures, and life expectancy;
- net societal accumulation of stocks of productive resources – which consists of net accumulation of physical capital plus accumulation of human capital plus changes in the value of natural resources stocks, net international investment position and R&D stocks, minus an adjustment for costs associated with environmental degradation;
- income distribution – the intensity of poverty (incidence and depth) and the inequality of income;
- economic security from the financial consequences of job loss and unemployment, illness and family breakup, and from poverty in old age.

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<sup>2</sup> Sensitivity analysis is omitted from this report on the IEWB for Newfoundland and Labrador. See the forthcoming CSLS report on the IEWB for Canada, 1981 to 2018, for sensitivity analysis for Canada and the provinces.

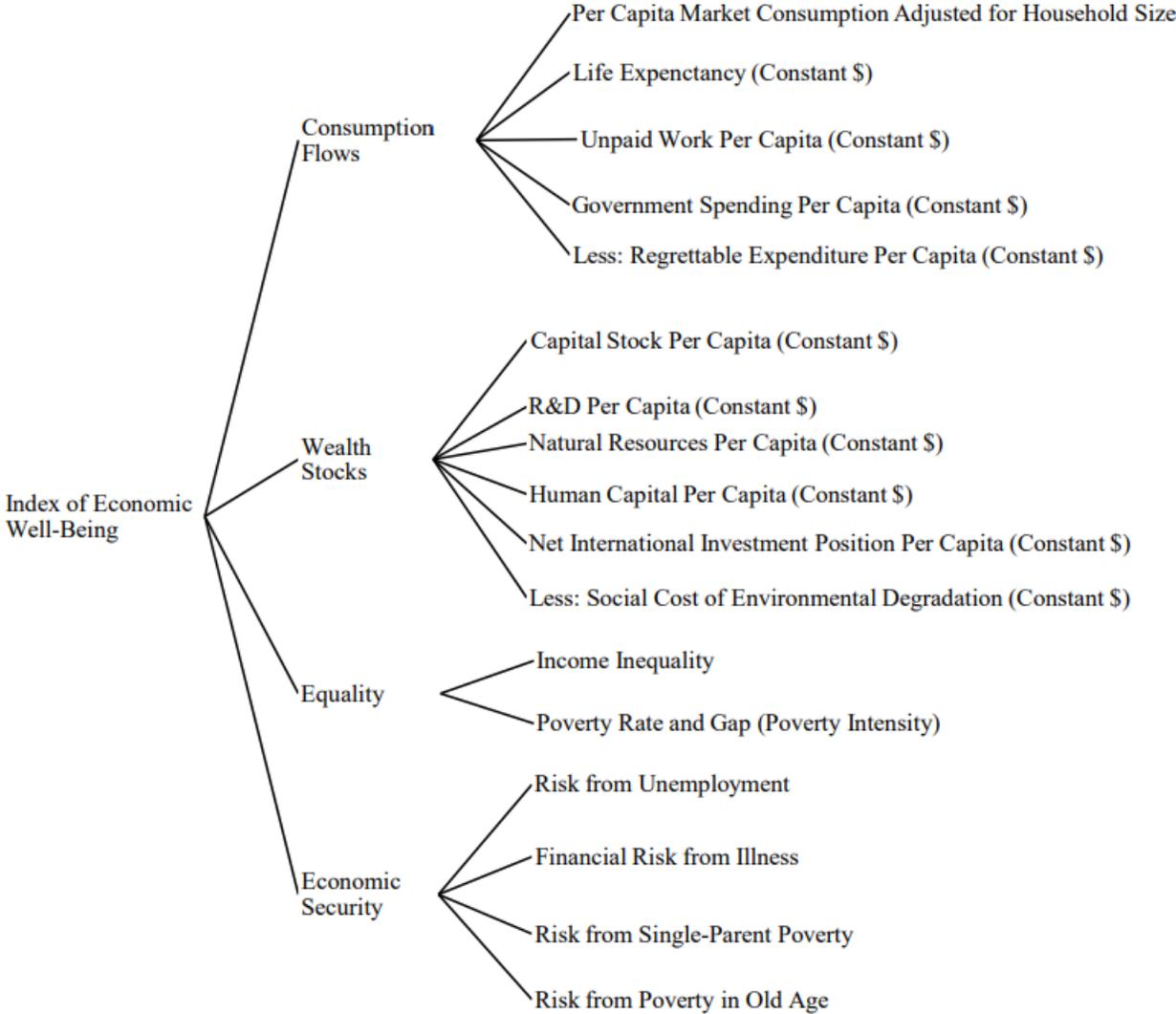
Each domain of economic well-being is itself an aggregation of many underlying variables, on which the existing data can be of uncertain quality. By contrast, the System of National Accounts has had many years of development effort by international agencies (particularly the UN and the IMF), and has produced an accounting system for GDP that is rigorously standardized across countries. However, using GDP per capita as a measure of “command over resources” would implicitly:

- (1) assume that the aggregate share of income devoted to accumulation (including net changes in the public capital stock, human capital, research and development and the value of unpriced environmental assets) is always optimal, and
- (2) set the weight of income distribution and economic insecurity to zero, by ignoring their influence entirely.

These assumptions do not seem justifiable, and they are not innocuous.

Due to data limitations, estimates of the Index of Economic Well-being computed for different geographical regions may differ in the number of variables that can be included in the calculations. Exhibit 3 illustrates the components that are used in our estimates of the Index of Economic Well-being for Canada and the provinces, based on the four domains outlined above. For illustrative purposes, we present below trends in the aggregate IEWB when each of the four components (Current Average Consumption, Net Accumulation, Economic Security and Inequality) receives equal weight. The data for each component are also available in an online EXCEL file at [www.csls.ca/reports/csls2020-05-data.xlsx](http://www.csls.ca/reports/csls2020-05-data.xlsx). It is straightforward to alter the weights assigned to each component and to calculate what difference, if any, that makes for trends in the IEWB.

**Exhibit 3: CSLS Index of Economic Well-being, Weighting Tree for Canada and the Provinces**



Source: CSLS

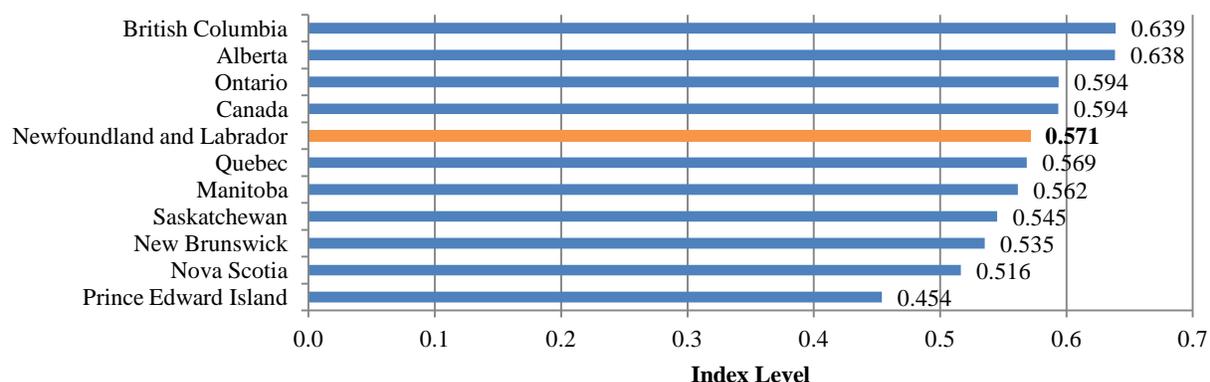
## II. Overall Trends in the Index of Economic Well-being

The Index of Economic Well-being is comprised of four domains of economic well-being: consumption flows, stocks of wealth, economic equality, and economic security. This section examines the overall trends in the IEWB and its four domains in Newfoundland and Labrador from 1981 to 2018. The next four sections look at each domain in depth, analyzing developments in the components and subcomponents.<sup>3</sup>

### A. Index of Economic Well-being

In 2018, the Index of Economic Well-being for Newfoundland and Labrador scored 0.571, ranking fourth in Canada (Chart 1). The province had a relatively strong performance among the Atlantic provinces, achieving the highest value of the overall index in the Atlantic region. The other Atlantic provinces had the lowest values of IEWB in Canada.

**Chart 1: Index of Economic Well-being by Province, 2018**



Source: IEWB Database 2018, Table 9

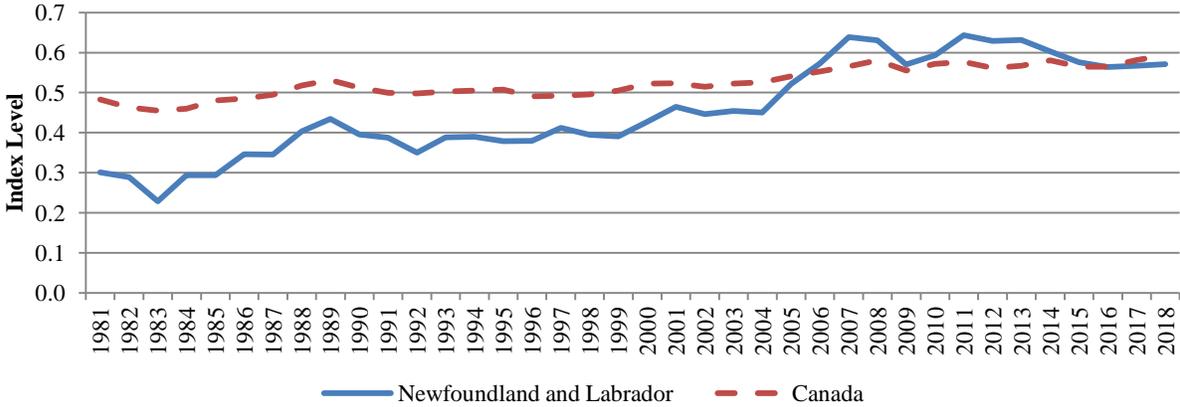
The IEWB for Newfoundland and Labrador increased 0.270 points from 0.301 in 1981 to 0.571 in 2018 (Chart 2). The province's overall index grew more significantly than Canada's over the period; the IEWB for Canada increased 0.111 points from 0.483 in 1981 to 0.594 in 2018. In terms of growth rates, the IEWB for Newfoundland and Labrador increased at an annual rate of 1.75 per cent from 1981 to 2018 (Chart 3).

The IEWB for Newfoundland and Labrador relative to Canada's also experienced significant growth, increasing 33.9 percentage points from 62.3 per cent of Canada's IEWB in 1981 to 96.2 per cent in 2018 (Chart 2). In 2006, the province's IEWB finally exceeded

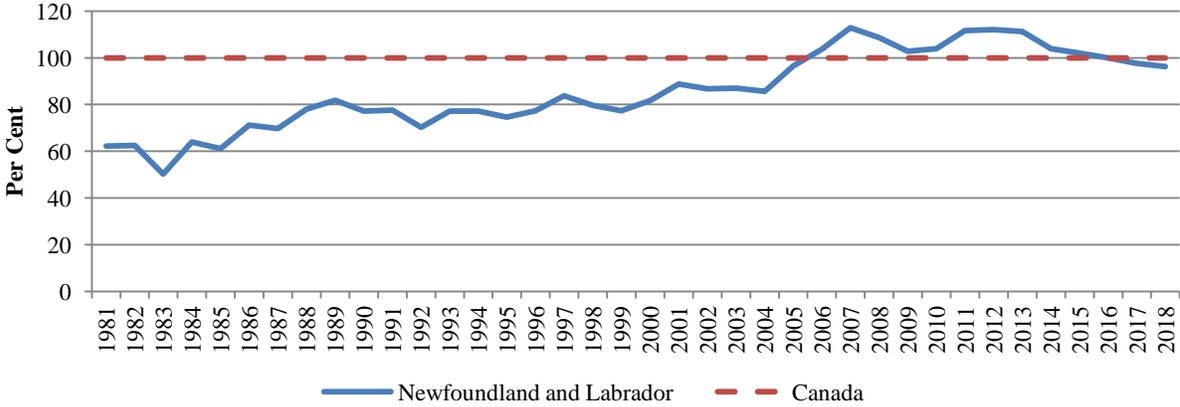
<sup>3</sup> The complete excel database for Canada and the provinces is publicly available on the CSLS website. Refer to the [database posted with this report](#).

Canada's, eventually peaking at 112.9 per cent of Canada's in 2007. However, in 2016, the IEWB for Newfoundland and Labrador relative to Canada's began declining. Between 2016 and 2018, the IEWB for Newfoundland and Labrador was once again lower than Canada's.

**Chart 2: Index of Economic Well-being in Newfoundland and Canada, 1981-2018**  
**Panel A: Absolute IEWB**



**Panel B: Relative to Canada**



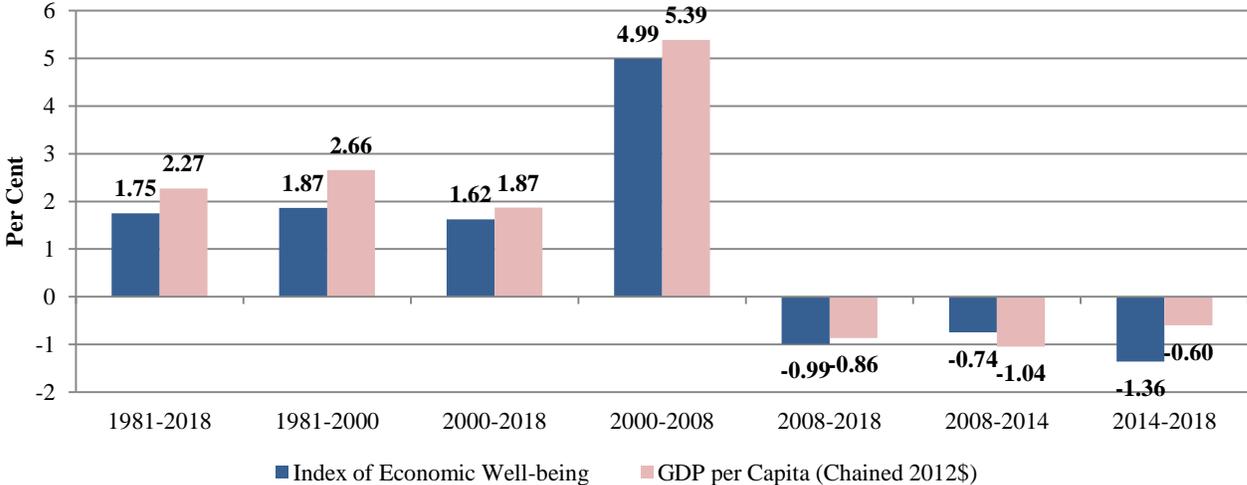
Source: IEWB Database 2018, Table 9

The IEWB is a much broader and, many argue, more meaningful metric of economic well-being than real GDP per capita. Consequently, it is useful to compare trends in the two measures (Chart 3). Over the 1981-2018 period, GDP per capita in Newfoundland and Labrador grew 1.3 times faster than the rate of the IEWB (2.27 per cent versus 1.75 per cent per year). In each sub-period, GDP per capita and the IEWB exhibited similar patterns of growth. However, GDP per capita enjoyed more favourable growth than the IEWB in every sub-period, with the exception of the 2008-2014 sub-period (in which GDP per capita decreased at a greater rate).

The province saw the fastest growth in the IEWB during the 2000 to 2008 sub-period at 4.99 per cent per year; GDP per capita also had the greatest growth over this sub-period at 5.39 per cent annually, which exceeded the IEWB's growth (Chart 3). However, after 2008, the

IEWB deteriorated, which drove down the growth rate for the 2000 to 2018 sub-period. The 2014-2018 sub-period, in particular, saw the worst growth in Newfoundland and Labrador’s IEWB at negative 1.36 per cent per year. As a result, the IEWB grew at a higher rate in the 1981-2000 sub-period than in the 2000-2018 sub-period.

**Chart 3: Compound Annual Growth Rates of the Index of Economic Well-being and GDP per Capita in Newfoundland and Labrador, 1981-2018**



Source: IEWB Database 2018, Table 9

Exhibit 4 shows the rankings of Canada and the provinces by the levels and growth rates of the Index of Economic Well-being and GDP per Capita. Among the provinces and Canada, Newfoundland and Labrador had relatively high levels in both the IEWB and GDP per capita. The province ranked fifth for the IEWB, but ranked higher in third place for GDP per capita. Most impressively, Newfoundland and Labrador had the highest growth in the IEWB and GDP per capita between 1981 and 2018.

**Exhibit 4: Ranking by Index of Economic Well-being and Per-Capita GDP, Canada and the Provinces**

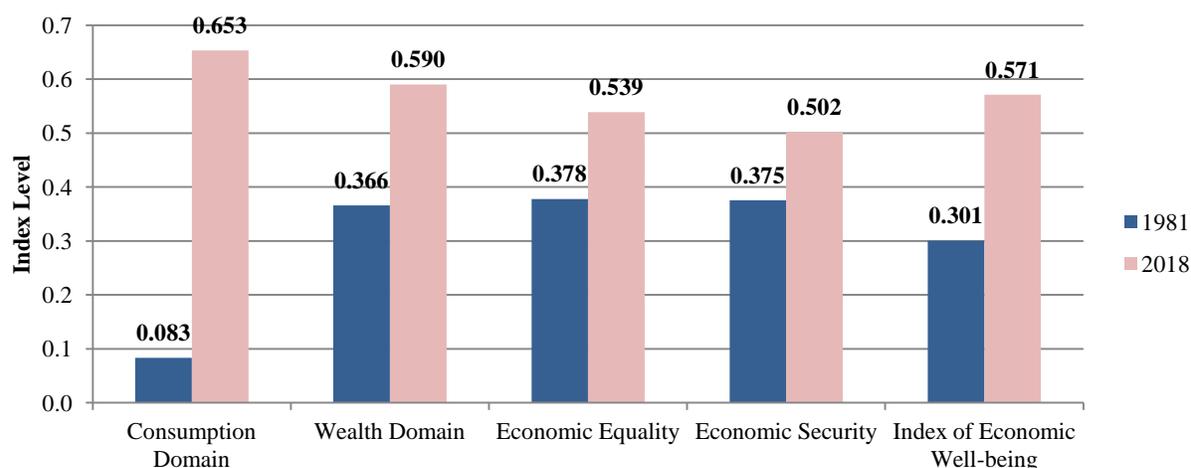
Rank	Levels in 2018		Growth Rate, 1981-2018	
	Index of Economic Well-being	GDP per Capita	Index of Economic Well-being	GDP per Capita
1	British Columbia	Alberta	Newfoundland and Labrador	Newfoundland and Labrador
2	Alberta	Saskatchewan	New Brunswick	Prince Edward Island
3	Ontario	Newfoundland and Labrador	Prince Edward Island	New Brunswick
4	Canada	Canada	Quebec	Nova Scotia
5	Newfoundland and Labrador	Ontario	Manitoba	Saskatchewan
6	Quebec	British Columbia	British Columbia	Manitoba
7	Manitoba	Manitoba	Nova Scotia	Canada
8	Saskatchewan	Quebec	Canada	Quebec
9	New Brunswick	New Brunswick	Saskatchewan	Ontario
10	Nova Scotia	Nova Scotia	Ontario	Alberta
11	Prince Edward Island	Prince Edward Island	Alberta	British Columbia

**B. The Four Domains of the IEWB**

In 2018, the consumption domain had the highest score among the four domains in Newfoundland and Labrador at 0.653 (Chart 4). The wealth domain ranked second with a score of 0.590, followed by economic equality at 0.539. The domain of economic security comprised the lowest share of the IEWB, scoring 0.502.

The improvement in the Index of Economic Well-being between 1981 and 2018 was primarily driven by improvements in the consumption and wealth domain (Chart 4). The consumption domain increased by 0.570 points, while the wealth domain rose 0.224 points over the period. The domains of economic equality and economic security also improved, though less significantly, by 0.161 points and 0.126 points, respectively.

**Chart 4: Domains of the Index of Economic Well-being in Newfoundland and Labrador, 1981 and 2018**



Source: IEWB Database 2018, Table 9

While all domains increased between 1981 and 2018, they also shared similar trends in growth across sub-periods (Table 1). Apart from economic equality, the domains experienced stronger growth in the 1981-2000 sub-period than the 2000-2018 sub-period. In contrast, economic equality deteriorated between 1981 and 2000. All four domains had strong growth in the 2000 to 2008 sub-period, particularly the wealth domain at an impressive 7.60 per cent per year. However, in the last sub-period, between 2014 and 2018, all domains deteriorated.

**Table 1: Compound Annual Growth in the Domains of the Index of Economic Well-being in Newfoundland and Labrador, 1981-2018**

	1981-2018	1981-2000	2000-2018	2000-2008	2008-2018	2008-2014	2014-2018
	<b>Per Cent</b>						
<b>Index of Economic Well-being</b>	1.75	1.87	1.62	4.99	-0.99	-0.74	-1.36
<b>Consumption Flows (Scaled)</b>	5.72	8.80	2.57	4.80	0.82	1.73	-0.52
<b>Stocks of Wealth (Scaled)</b>	1.30	1.76	0.81	7.60	-4.31	-6.46	-0.99
<b>Index of Economic Equality</b>	0.96	-1.07	3.15	5.79	1.08	3.57	-2.53
<b>Index of Economic Security</b>	0.79	1.27	0.28	1.11	-0.38	0.42	-1.56

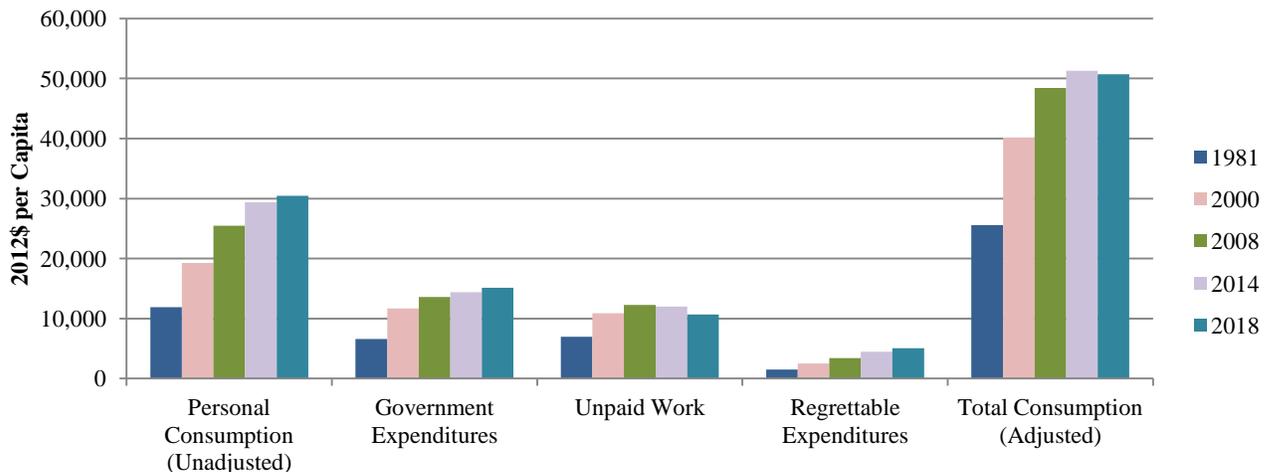
Source: IEWB Database 2018, Table 9

### III. Trends in the Consumption Flows Domain

This section examines the components of consumption flow. The consumption domain consists of three components: personal consumption expenditures, government expenditures on goods and services, and unpaid work. The consumption domain is adjusted by three factors. First, personal consumption expenditures are adjusted for family size to account for the economies of scale that exist in private household consumption. Second, regrettable expenditures—those that do not increase well-being—are subtracted from total consumption flows. Lastly, the percent increase in life expectancy is applied to total consumption flows to adjust for the positive impact of increased life expectancy.

Chart 5 shows the levels of consumption components for Newfoundland in 2012 constant dollars per capita in 1981, 2000, 2008, 2014, and 2018. In every year, personal consumption constituted the largest share of total consumption, followed by either government expenditures or unpaid work.

**Chart 5: Components of the Consumption Domain in Newfoundland, 1981, 2000, 2008, 2014 and 2017**



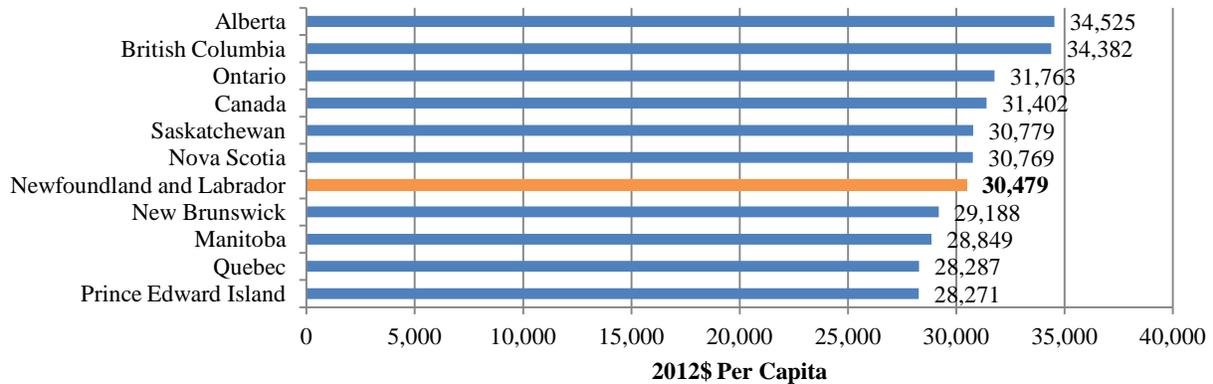
Source: IEWB Database 2018, Table 1

#### A. Personal Consumption

In 2018, personal consumption in Newfoundland and Labrador was \$30,479 per capita, which constituted 60.1 per cent of total consumption flows. Among the provinces, Newfoundland ranked sixth in terms of personal consumption per capita (Chart 6). Alberta had the highest personal consumption per capita of the provinces at \$34,525 per capita, exceeding Newfoundland's by 13.3 per cent.

**Chart 6: Personal Consumption Per Capita by Province, 2018**

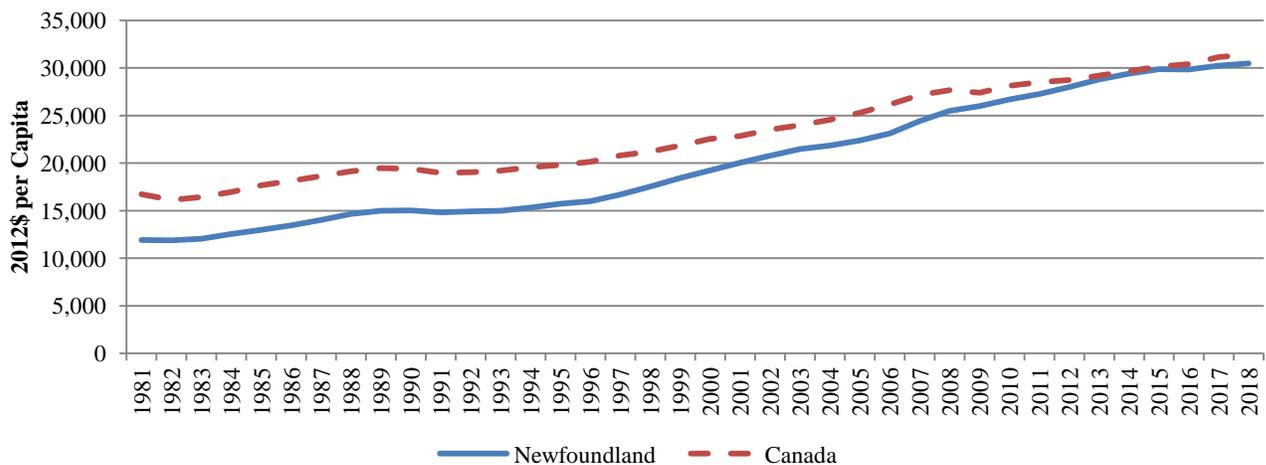
Source: IEWB Database 2018



Source: IEWB Database 2018, Table 1

Newfoundland and Labrador experienced significant growth in personal consumption per capita between 1981 and 2018 (Chart 7). During this period, personal consumption per capita in the province increased by 155.7 per cent or at a rate of 2.57 per cent per year. Personal consumption grew the most during the 2000-2018 period at 3.57 per cent per year. However, between 2008 and 2018, growth in personal consumption slowed to 1.80 per cent per year. In comparison, Canada’s personal consumption grew less significantly over the period, increasing by 87.6 per cent since 1981 or 1.71 per cent annually. Despite its substantial growth over the period, personal consumption in Newfoundland and Labrador has never reached the national value. However, by the end of the period, the province came close to Canada’s personal consumption of \$31,402 per capita.

**Chart 7: Personal Consumption Per Capita in Newfoundland and Canada, 1981-2018**



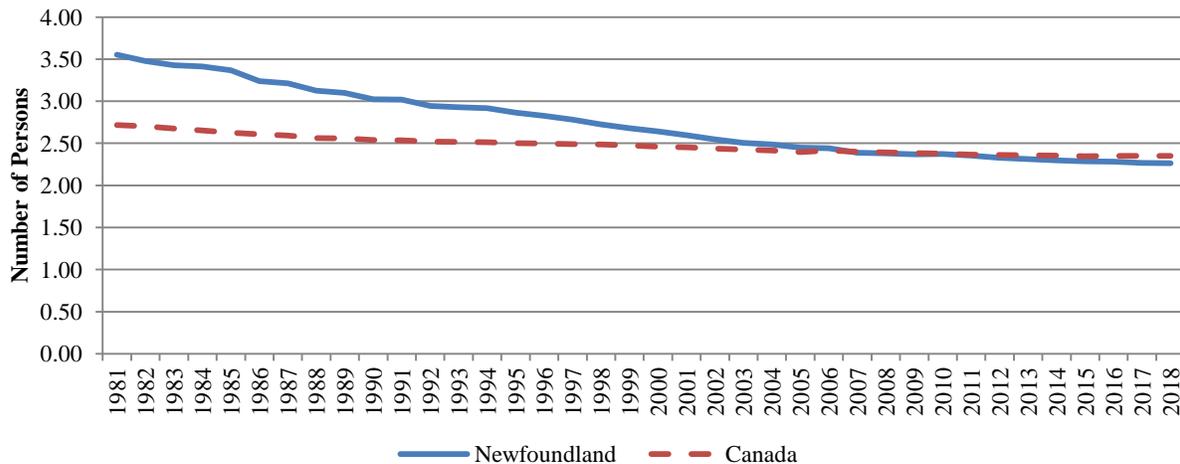
Source: IEWB Database 2018, Table 1

## B. Average Family Size

As noted previously, personal consumption must be adjusted for family size to reflect economies of scale in household consumption. When people live together in groups rather than individually, they can achieve greater effective consumption.<sup>4</sup> To account for this issue, we use the Luxembourg Income Study equivalence scale, which is the square root of family size.<sup>5</sup>

In 2018, the average family size in Newfoundland and Labrador was 2.27 persons, which was slightly lower than the national average of 2.35 persons (Chart 8). In contrast, in 1981, the province's average family size of 3.55 persons exceeded Canada's at 2.72 persons. Between 1981 and 2018, the average family size in the Newfoundland and Labrador shrunk significantly, decreasing by 36.2 per cent. The decline in family size in the province over the period was likely driven by a rise in single persons living alone, falling birth rates, an exodus of working-age people, and a rapidly aging population. A smaller average family size, however, dampens the ability of households in the province to reap the aforementioned economies of scale in consumption.

**Chart 8: Average Economic Family Size in Newfoundland and Canada, 1981-2018**



Source: IEWB Database 2018, Appendix Table 2

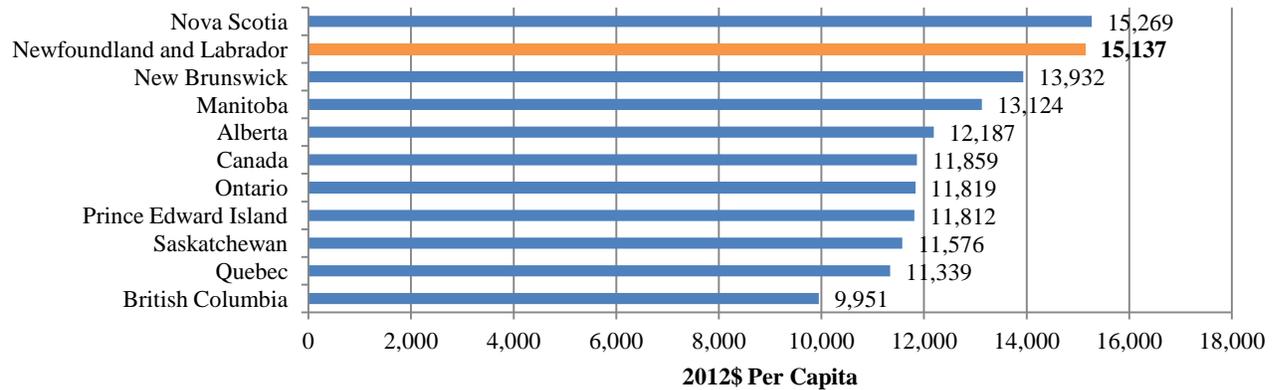
<sup>4</sup> For example, they can cooperate in household production (e.g. one person can cook for the household) and share fixed costs (e.g. the household shares one refrigerator rather than each person buying one).

<sup>5</sup> "Family" is categorized into two types: 'economic families,' which are groups of two or more persons related by blood, marriage, common-law, or adoption and living in the same dwelling, and 'unattached individuals,' which are persons either living alone or sharing a dwelling with persons to whom they are unrelated. It should be noted that unattached individuals living together (i.e. roommates) enjoy many benefits of economies of scale in household consumption. However, as the data used in this report considers roommates as separate families, our adjustment for family size does not capture these benefits. Although our estimates are underestimated, the issue is minor.

## C. Government Expenditures

The IEWB defines government expenditures per capita as spending by all levels of government on current goods and services and on fixed capital and inventories, minus capital consumption allowances.<sup>6</sup> In 2018, Newfoundland and Labrador (Chart 9) spent \$15,136 per capita on government expenditures. Government expenditures represented the second largest share of total consumption flows at 29.9 per cent. Among the provinces, Newfoundland and Labrador ranked second in terms of government expenditures per capita. The Atlantic Provinces, with the exception of Prince Edward Island, had the highest levels of per-capita government expenditures. Nova Scotia topped the rankings at \$15,269 per capita, while New Brunswick followed Newfoundland and Labrador with \$13,932 per capita.

**Chart 9: Government Expenditures per Capita by Province, 2018**

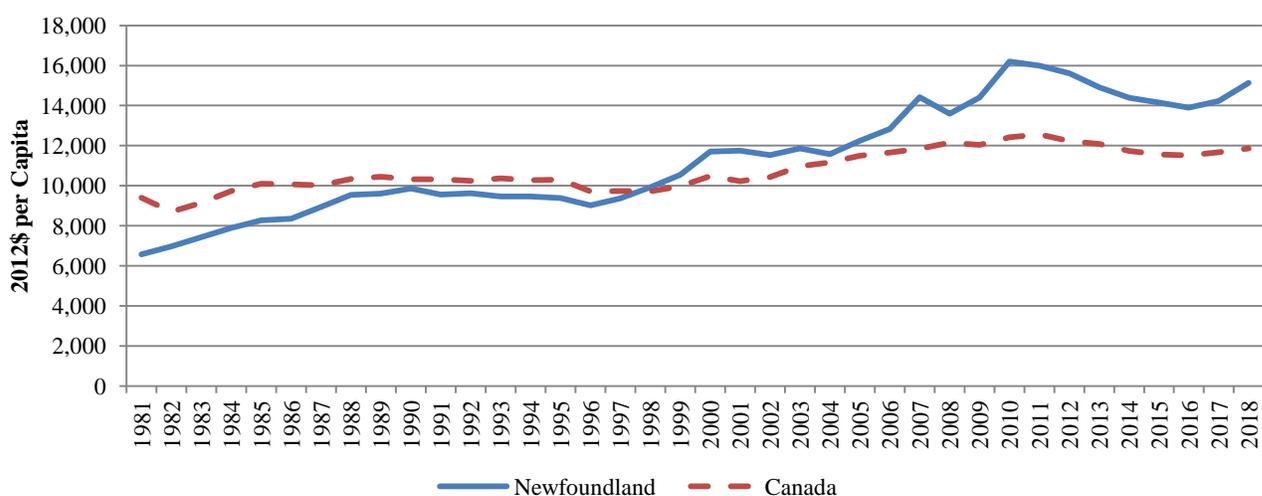


Source: IEWB Database 2018, Table 1

Government expenditures in Newfoundland and Labrador grew substantially between 1981 and 2018 (Chart 10). The province saw a 130.2 per cent increase over the period, or an annual increase of 2.28 per cent. At the national level, government expenditures grew much slower; Canada's government expenditures increased 26.2 per cent over the period at a modest rate of 0.63 per cent per year. Consequently, government expenditures in Newfoundland and Labrador surpassed Canada's in 1998, remaining above the national value for the rest of the period.

<sup>6</sup> Capital consumption allowances data are not available post-2009. The values for 2010 through 2018 are extrapolated using the compound average annual growth rate from 2004 to 2009.

**Chart 10: Government Expenditures per Capita in Newfoundland and Canada, 1981-2018**



Source: IEWB Database 2018, Table 1

Table 2 shows the absolute values of each sub-component of total government expenditures, as well as the annual growth rates in several periods. Of the three sub-components, fixed capital and inventories had the strongest growth between 1981 and 2018 at 4.87 per cent per year, while government expenditures increased by 1.61 per cent per year and capital consumption allowance by 1.31 per cent per year. After 2000, fixed capital and inventories generally exceeded capital consumption allowance, which drove the overall growth in total government expenditures.<sup>7</sup>

However, despite being positive between 1981 and 2018, growth in total government expenditures slowed after 2000 (Table 2). Between 1981 and 2000, total government expenditures grew by 3.08 per cent per year, but this growth rate decreased to 1.44 per cent per year from 2000 to 2018. Faster growth in capital consumption allowance was likely responsible for this slowdown. Between 2014 and 2018, capital consumption allowance grew at a significant rate of 5.09 per cent per year, compared to only 3.34 per cent per year for fixed capital and inventories and 1.24 per cent per year for government expenditures.

<sup>7</sup> In the post-2000 period, fixed capital and inventories were below capital consumption allowance from 2002 to 2004. This situation was likely driven by the negative growth in fixed capital and inventories between 2000 and 2008; fixed capital and inventories declined at a rate of 2.02 per cent per year over the eight year period.

**Table 2: Sub-Components of Government Expenditures per Capita in Newfoundland and Labrador, 1981-2018**

**Panel A: Absolute Values**

	1981	2000	2008	2014	2018
	<b>Millions of 2012\$</b>				
<b>Government Expenditures</b>	4,153	5,964	6,822	7,128	7,488
<b>Fixed Capital and Inventories</b>	254	954	810	1,295	1,477
<b>Capital Consumption Allowance</b>	624	740	680	827	1,009
	<b>2012\$ per Capita</b>				
<b>Total Government Expenditures per Capita</b>	6,576	11,702	13,590	14,382	15,137

**Panel B: Compound Annual Growth Rates**

	1981-2018	1981-2000	2000-2018	2000-2008	2008-2018	2008-2014	2014-2018
	<b>Per Cent</b>						
<b>Government Expenditures</b>	1.61	1.92	1.27	1.69	0.94	0.73	1.24
<b>Fixed Capital and Inventories</b>	4.87	7.21	2.46	-2.02	6.19	8.13	3.34
<b>Capital Consumption Allowance</b>	1.31	0.90	1.74	-1.05	4.03	3.33	5.09
<b>Total Government Expenditures per Capita</b>	2.28	3.08	1.44	1.89	1.08	0.95	1.29

Source: IEWB Database 2018, Appendix Table 6

## D. Unpaid Work

Statistics Canada (1995) classifies unpaid work into five major categories:

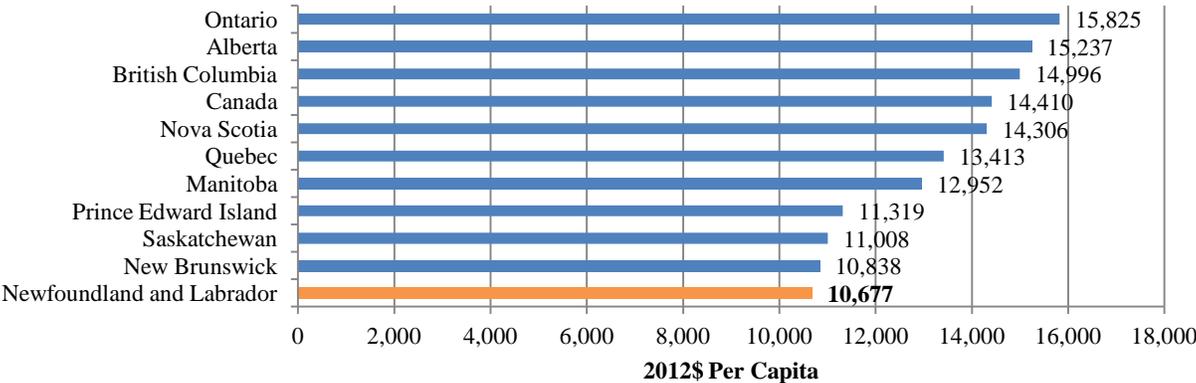
- 1) Domestic work, which includes meal preparation, cleaning, clothing care, repairs and maintenance, and other domestic work
- 2) Help and care, for children and adults
- 3) Management and shopping
- 4) Transportation and travel
- 5) Volunteer Work

As data is not available, we calculate the monetary value of this component. First, estimates of hours of unpaid work per capita performed by working aged persons (persons 15 years of age or older) in the years 1981, 1986, and 1992 are taken from Statistics Canada (1995), and from Statistics Canada's General Social Survey for the years 1998, 2005, 2010, and 2015. As the survey is only performed every five years, we interpolate the hours worked in any given year between surveys by multiplying the hours of the previous year by the growth rate implied for its five year period by the Statistics Canada data. For years after the last survey, we

extrapolate the hours worked using the growth rate of the previous five-year period. Second, to estimate the value of these hours, we use data for the total value of unpaid work per year from Statistics Canada (1995) for the years 1981, 1986, and 1992, which uses a generalist replacement wage. To calculate the values after 1992, we multiply the hours worked by the total labour compensation per hour for the total economy (which we refer to as ‘wages’) in constant dollars for that year.<sup>8</sup>

In 2018, the value of unpaid work per capita in Newfoundland and Labrador was \$10,677 per capita, which constituted 21.1 per cent of total consumption flows (Chart 11). Among the provinces, Newfoundland and Labrador had the lowest value of unpaid work. All four Atlantic provinces ranked below the Canadian average.

**Chart 11: Value of Unpaid Work per Capita by Province, 2018**



Source: IEWB Database 2018, Table 1

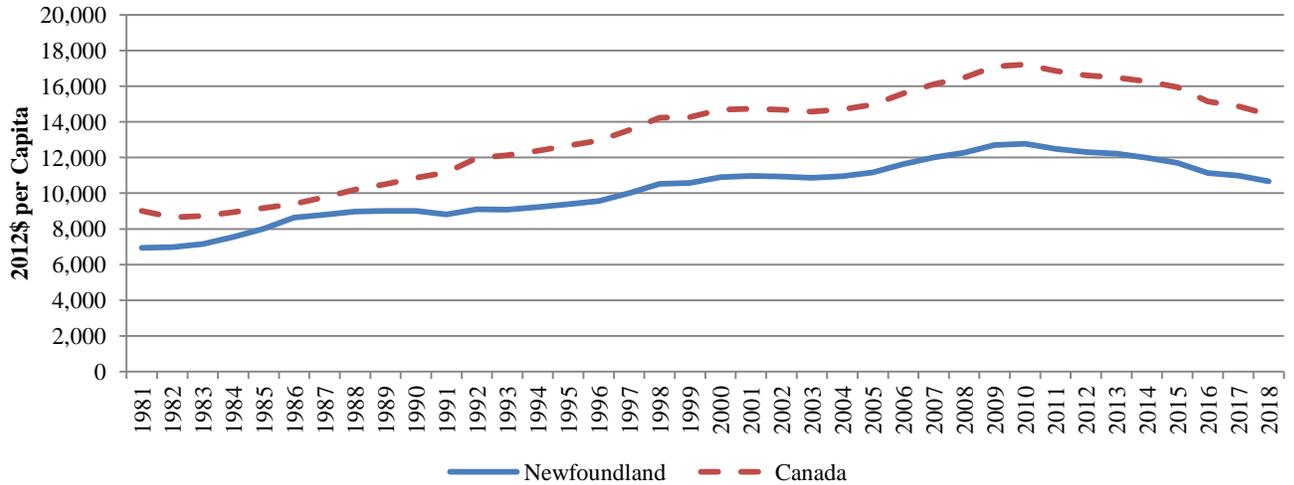
The value of unpaid work per capita in Newfoundland and Labrador increased between 1981 and 2018 (Chart 12). Over the period, the value of unpaid work per capita in the province grew by 53.7 per cent or 1.17 per cent per year, though it never reached Canada’s value of unpaid work. This growth, however, was lower than Canada’s over the period. The national value of unpaid work per capita increased by 59.9 per cent over the period or 1.28 per cent annually, exceeding Newfoundland’s growth rates.

Despite the overall increase, the value of unpaid work in Newfoundland and Labrador experienced a downward trend after peaking in 2010 at \$12,765 per capita (Chart 12). During the 1981-2000 period, the value of unpaid work grew at a robust 2.40 per cent per year; however, during the 2000-2018 period, it deteriorated by 0.12 per cent per year. This negative growth was

<sup>8</sup> The values of hours after 1992 are extrapolated using the growth rate of real wages over the 1992-2018 period. The wage in a given year is calculated by multiplying the wage of the previous year by the change in the index of labour compensation, which are taken from Statistics Canada’s Labour Productivity Measures Survey and deflated by CPI.

most concentrated towards the end of the period. Between 2014 and 2018, the value of unpaid work decreased by 2.86 per cent annually.

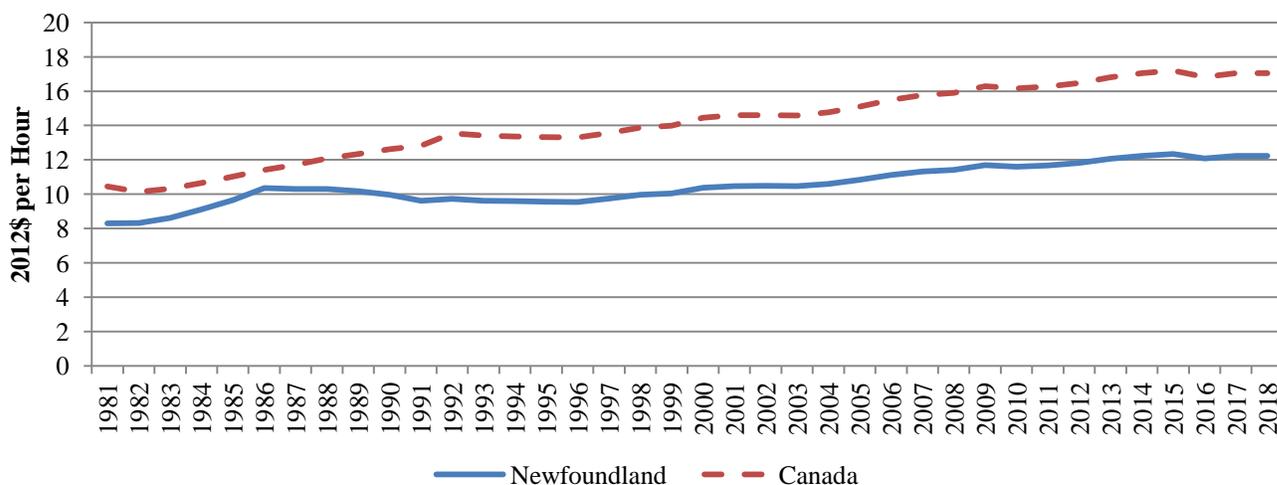
**Chart 12: Value of Unpaid Work per Capita in Newfoundland and Canada, 1981-2018**



Source: IEWB Database 2018, Table 1

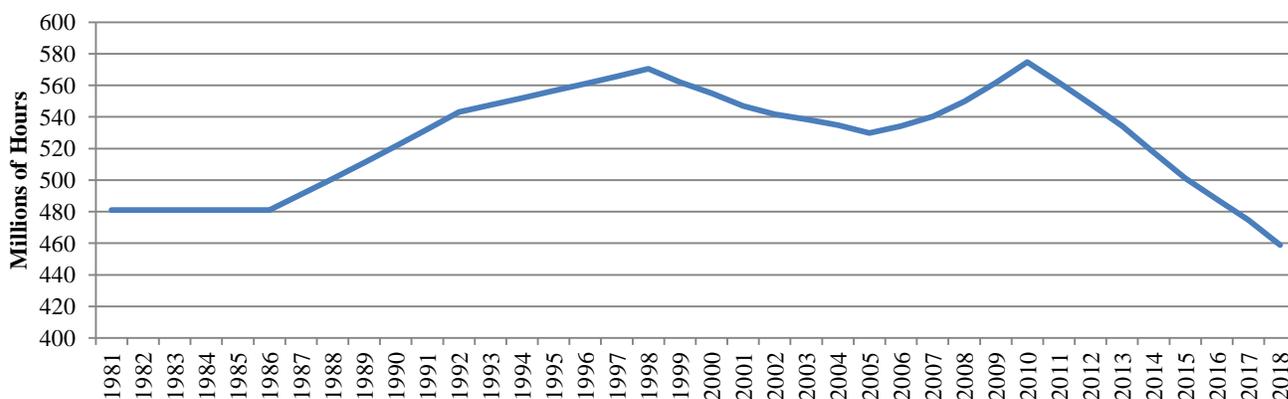
Changes in the per-capita value of unpaid work reflect trends in three factors: the generalist replacement wage, the working-age population, and hours of unpaid work. The unpaid wage rate and working-age population both increased between 1981 and 2018 in Newfoundland and Labrador, contributing to the growth in the province’s value of unpaid work. The unpaid wage rate increased by 47.2 per cent from \$8.31 in 1981 to \$12.23 in 2018 in 2012 dollars, though it remained well below the Canadian wage (Chart 13). The working-age population increased by 10.4 per cent from 402,000 in 1981 to 444,000 in 2018. In contrast, the number of unpaid work hours in Newfoundland and Labrador decreased overall over the period, due to negative growth after 2010; unpaid work hours totaled 459 million in 2018, 4.6 per cent lower than the 1981 level of 481 million hours. As shown in Chart 14, between 2010 and 2018, the number of hours of unpaid work decreased each year. This decline corresponds to the downward trend in the value of unpaid work during the post-2010 period.

**Chart 13: Unpaid Work Wage Rate in Newfoundland and Canada, 1981-2018**



Source: IEWB Database 2018, Appendix Table 5-1 & 5-2

**Chart 14: Hours of Unpaid Work in Newfoundland and Labrador, 1981-2018**



Source: IEWB Database 2018, Appendix Table 5-2

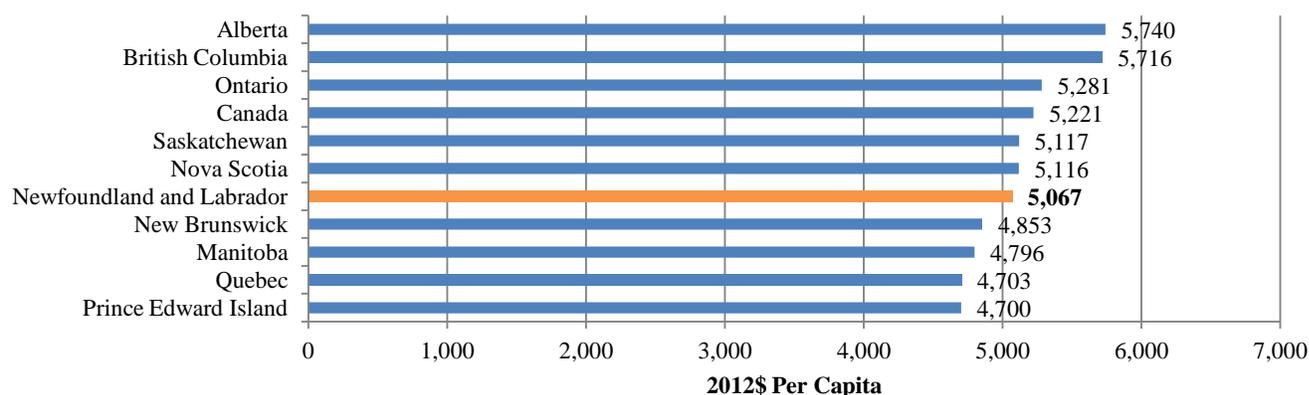
## E. Regrettable Expenditures

Although most expenditures increase economic well-being, some—known as regrettable expenditures—are spent to prevent or ameliorate undesirable outcomes. As people would be better off if such expenditures were not necessary, these expenditures represent a reduction in well-being. This report defines regrettable expenditures as the cost of commuting (including traveling and time costs), the cost of crime (such as security measures, repairing damaged property, and medical and legal expenses), the cost of household pollution abatement (including expenses on devices to improve air and water quality in the home), and the cost of automobile accidents (including repair costs and medical and legal expenses). As the sum of these costs does

not contribute to or may actively detract from well-being, regrettable expenditures are subtracted from total consumption flows.<sup>9</sup>

In 2018, regrettable expenditures in Newfoundland and Labrador were \$5,067 per capita (Chart 15).<sup>10</sup> Compared to the other provinces, Newfoundland fared modestly, ranking sixth. The provinces with the most regrettable expenditures, however, did not exceed Newfoundland by a large margin. Alberta, which had the highest regrettable expenditures per capita, surpassed Newfoundland by \$673 or 13.3 per cent.

**Chart 15: Regrettable Expenditures per Capita by Province, 2018**



Source: IEWB Database 2018, Table 1

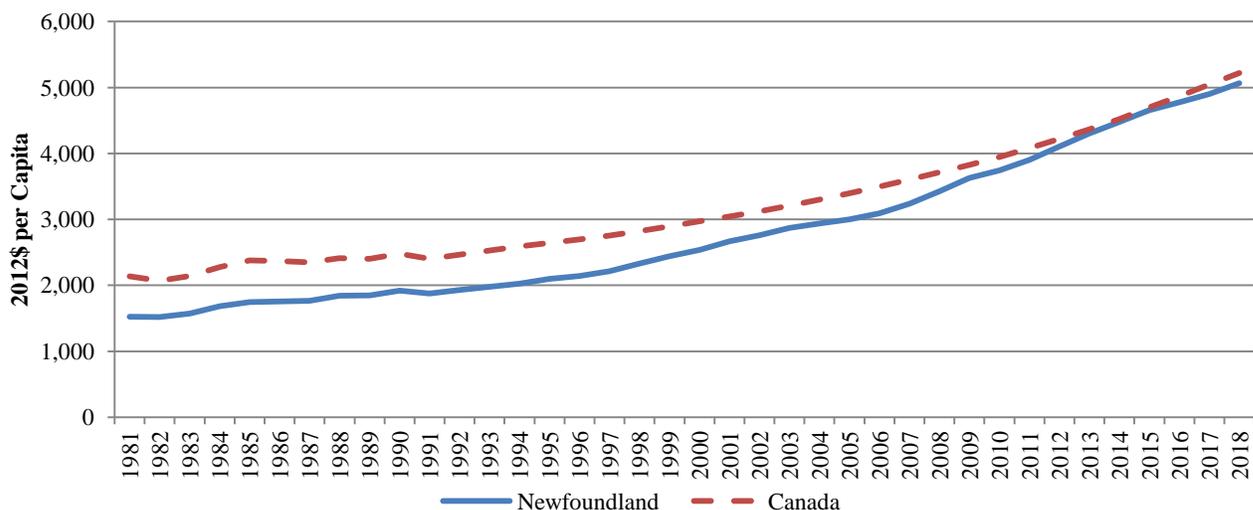
Regrettable expenditures in Newfoundland and Labrador increased continuously during the 1981-2018 period (Chart 16). Regrettable expenditures rose 232.9 per cent or 3.30 per cent annually. Although regrettable expenditures in the province never exceeded the Canadian average during the period, their growth rates were much larger than Canada's. Regrettable expenditures in Canada increased 144.2 per cent over the period, at a rate of 2.44 per cent annually. By 2018, Newfoundland and Labrador was close to reaching Canada's regrettable expenditures of \$5,221 per capita.

Regrettable expenditures in the province grew more significantly after 2000. Between 1981 and 2000, the growth rate was 2.72 per cent per year, much lower than the annual growth rate of 3.92 per cent between 2000 and 2018. Interestingly, this higher growth was mostly concentrated in the 2008-2014 sub-period, which saw annual growth of 4.57 per cent. Between 2014 and 2018, growth slowed to 3.15 per cent per year, though it remained positive and substantial.

<sup>9</sup> For further discussion on methodologies, see Wong (2020) for a report on the concept of regrettable expenditures.

<sup>10</sup> Estimates of regrettable expenditures for the 1981-94 period are from Messinger (1997). Estimates after 1994 are extrapolations based on the assumption of constant growth rates. Furthermore, estimates for the provinces were calculated by multiplying personal expenditures by Canada's ratio of regrettable expenditures to personal expenditures.

**Chart 16: Regrettable Expenditures per Capita in Newfoundland and Canada, 1981-2018**



Source: IEWB Database 2018, Table 1

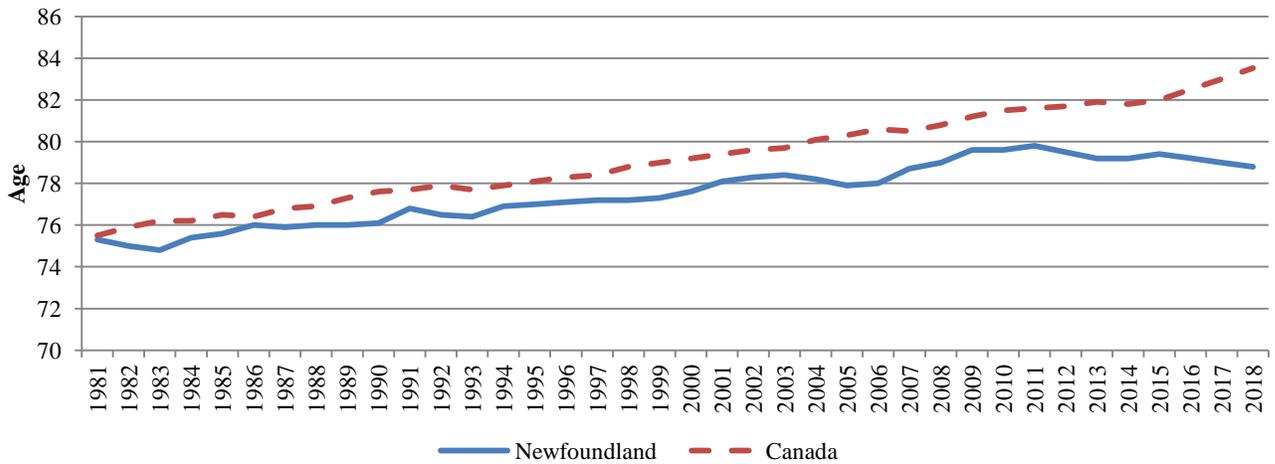
## F. Life Expectancy

Life expectancy is the final adjustment to consumption. Total consumption flows are multiplied by an index of life expectancy, as an increase in longevity increases total consumption flows.<sup>11</sup> In 2018, life expectancy at birth in Newfoundland and Labrador was 78.8 years, up 4.7 per cent from 75.3 years in 1981 (Chart 17). Between 1981 and 2018, life expectancy advanced steadily at a rate of 0.12 per cent per year.

However, despite increasing since 1981, life expectancy in Newfoundland and Labrador remained below the Canadian average throughout the period (Chart 17). Life expectancy in Canada rose 10.6 per cent or 0.27 per cent annually from 1981 to 2018, reaching 83.5 years by the end of the period. Among the provinces, life expectancy in Newfoundland and Labrador was the lowest in 2018. As such, compared to the rest of Canada, Newfoundland and Labrador could not fully enjoy the benefits to total consumption from increased longevity.

<sup>11</sup> Calver (2016) estimates that approximately 41 per cent of the improvement in Canada’s standards of living from 2000 to 2011 can be attributed to changes in life expectancy. Therefore, we may be underestimating the impact of the benefits of increased life expectancy on overall economic well-being.

**Chart 17: Life Expectancy at Birth in Newfoundland and Canada, 1981-2018**



Source: IEWB Database 2018, Appendix Table 3

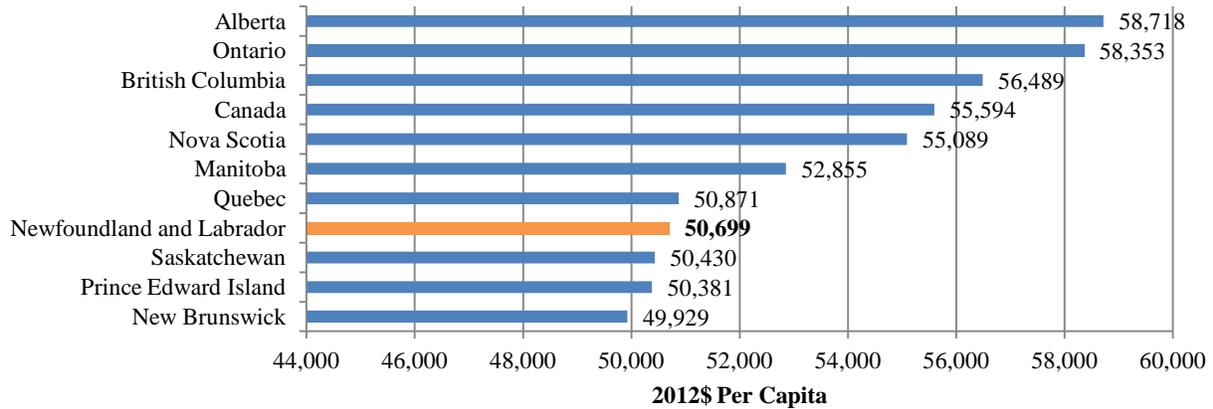
## G. Total Consumption Flows

To calculate total per-capita consumption, we sum family size-adjusted personal consumption, government expenditures on goods and services, and unpaid work, then subtract regrettable expenditures. Finally, we adjust the total for the increase in life expectancy. This adjusted total consumption is scaled to generate the index of the consumption domain of the overall Index of Economic Well-being.<sup>12</sup>

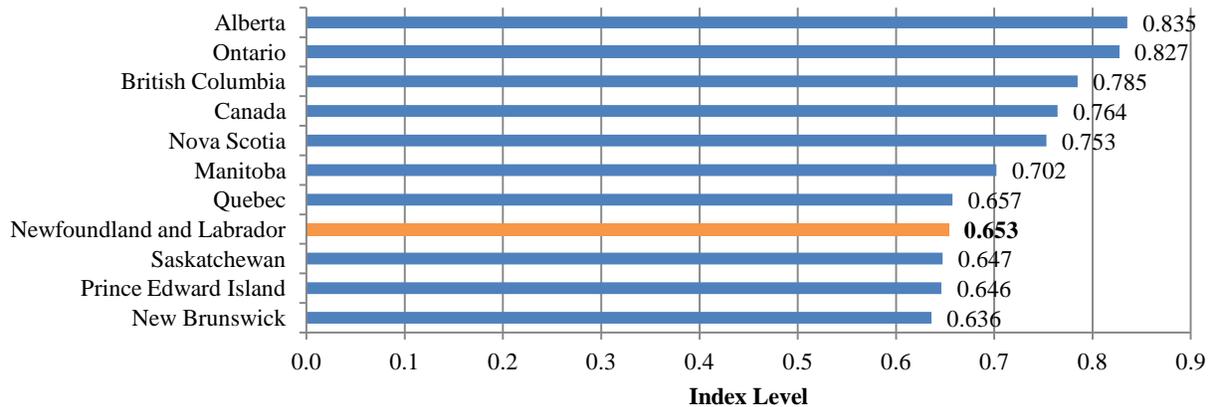
In 2018, total adjusted consumption flows in Newfoundland and Labrador was \$50,699 per capita, while its index of the consumption domain was 0.653 (Chart 18). Among the provinces, Newfoundland and Labrador ranked seventh. The other Atlantic provinces similarly ranked below the Canadian average. Alberta had the highest per-capita total consumption flows with \$58,718 per capita and a score of 0.835, which were significantly higher than Newfoundland and Labrador's.

<sup>12</sup> To calculate the scores for the index of the consumption domain, we apply a linear scaling procedure to the total adjusted consumption flows for each province. This scaling procedure does not affect the rankings of the provinces.

**Chart 18: Total Consumption (Adjusted) per Capita by Province, 2018**  
**Panel A: Per Capita**



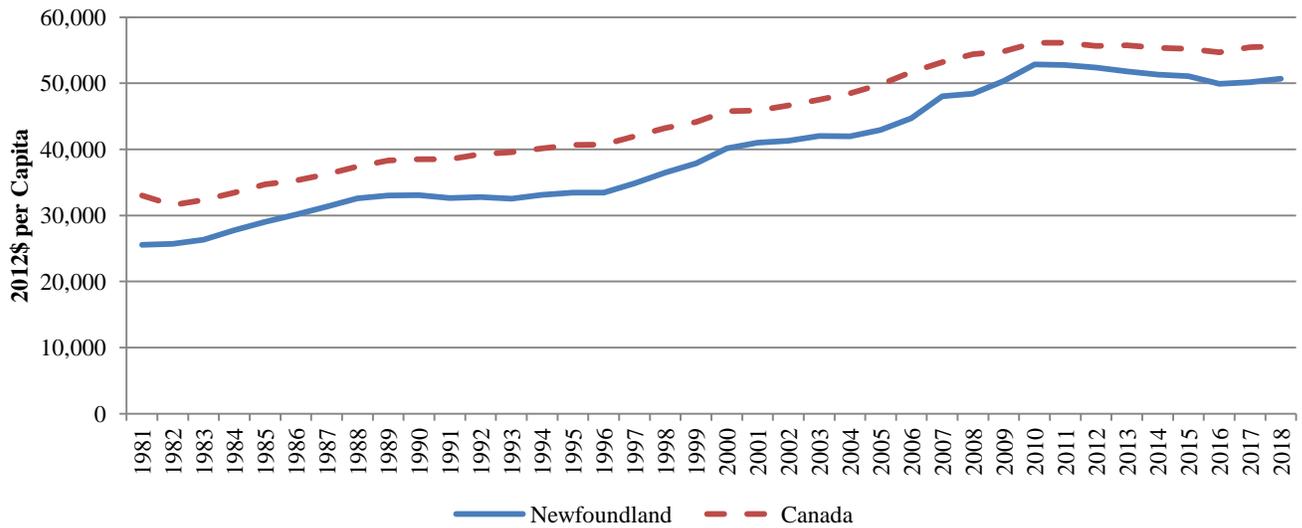
**Panel B: Scaled (Index of the Consumption Domain)**



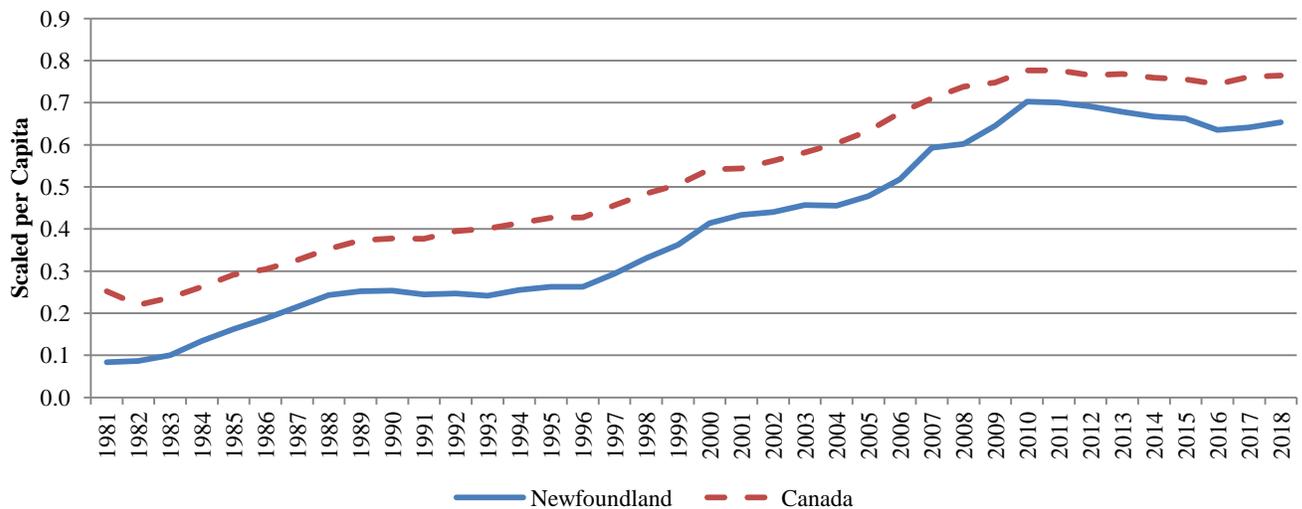
Source: IEWB Database 2018, Table 1

Although Newfoundland and Labrador had relatively low per-capita total consumption flows and never reached Canada’s level during the period, the province saw drastic improvement in the consumption domain between 1981 and 2018 (Chart 19). Over the period, total consumption flows per capita grew 98.4 per cent or 1.87 per cent annually from its 1981 level of \$25,560 per capita. This improvement was more impressive than Canada’s, which experienced an increase of 68.4 per cent or 1.42 per cent per year. The index of the consumption domain for Newfoundland and Labrador also grew by 0.57 points since 1981, compared to Canada’s increase of 0.51 points.

**Chart 19: Total Consumption Flows per Capita in Newfoundland and Canada, 1981-2018**  
**Panel A: Absolute Values**



**Panel B: Scaled**



Source: IEWB Database 2018, Table 1

Table 3 summarizes the overall findings for the consumption domain in Newfoundland and Labrador. By 2018, personal expenditures, average family size, regrettable expenditures, and life expectancy remained slightly below the national level. Government expenditures and unpaid work were the outliers among the components. Government expenditures in Newfoundland and Labrador exceeded the Canadian level by 27.6 per cent, while unpaid work per capita was exceptionally low at 74.1 per cent of Canada’s.

Most components improved considerably over the period (Table 3). In particular, personal consumption and government expenditures saw the greatest improvement. However,

unpaid work per capita decreased and regrettable expenditures increased between 1981 and 2018, specifically in the sub-periods after 2008. Nevertheless, despite experiencing slower growth towards the end of the period between 2008 and 2018, Newfoundland and Labrador's index of the consumption domain enjoyed an impressive improvement since 1981.

**Table 3: Summary of Consumption Components in Newfoundland and Labrador, 1981-2018**  
**Panel A: Per Capita**

	1981	2000	2008	2014	2018
	<b>2012\$ per Capita</b>				
<b>Personal Consumption (Unadjusted)</b>	11,921	19,251	25,492	29,389	30,479
<b>Family Size Adjustment</b>	1,706	-279	-1,640	-2,375	-2,652
<b>Personal Consumption (Adjusted)</b>	13,626	18,973	23,852	27,014	27,827
<b>Government Expenditures</b>	6,576	11,702	13,590	14,382	15,137
<b>Unpaid Work</b>	6,948	10,908	12,265	11,991	10,677
<b>Regrettable Expenditures</b>	-1,522	-2,537	-3,424	-4,477	-5,067
<b>Total Consumption (Adjusted)</b>	25,560	40,132	48,428	51,307	50,699
<b>Life Expectancy Adjustment</b>	-68	1,086	2,146	2,397	2,125
<b>Total Consumption (Unadjusted)</b>	25,628	39,046	46,283	48,910	48,574

**Panel B: Relative to Canada**

	1981	2000	2008	2014	2018
	<b>Per Cent of Canada's</b>				
<b>Personal Consumption (Unadjusted)</b>	71.2	85.4	92.2	99.0	97.1
<b>Average Family Size</b>	130.7	107.2	99.5	97.5	96.3
<b>Government Expenditures</b>	70.0	111.6	111.9	122.6	127.6
<b>Unpaid Work</b>	77.1	74.3	74.4	73.7	74.1
<b>Regrettable Expenditures</b>	71.2	85.4	92.2	99.0	97.1
<b>Life Expectancy</b>	99.7	98.0	97.8	96.8	94.4
<b>Total Consumption (Adjusted)</b>	77.4	87.7	89.0	92.7	91.2

### Panel C: Compound Annual Growth Rates

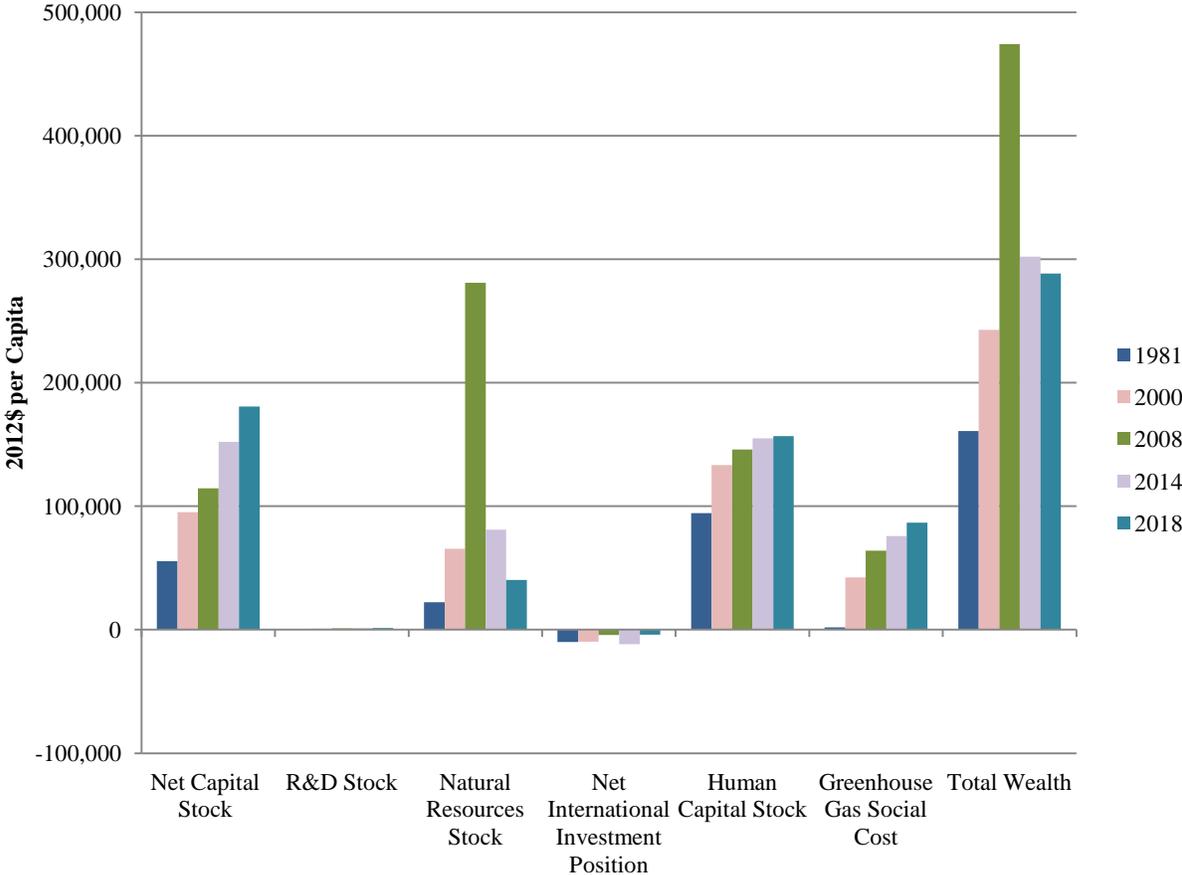
	1981-2018	1981-2000	2000-2018	2000-2008	2008-2018	2008-2014	2014-2018
	<b>Per Cent</b>						
<b>Total Consumption (Adjusted)</b>	1.87	2.40	1.31	2.38	0.46	0.97	-0.30
<b>Total Consumption (Scaled)</b>	5.72	8.80	2.57	4.80	0.82	1.73	-0.52
<b>Index of Life Expectancy</b>	0.12	0.16	0.09	0.22	-0.02	0.04	-0.13
<b>Personal Consumption (Unadjusted)</b>	2.57	2.55	2.59	3.57	1.80	2.40	0.91
<b>Index of Square Root of Family Size</b>	-0.61	-0.78	-0.42	-0.65	-0.24	-0.30	-0.17
<b>Government Expenditures</b>	2.28	3.08	1.44	1.89	1.08	0.95	1.29
<b>Unpaid Work</b>	1.17	2.40	-0.12	1.48	-1.38	-0.37	-2.86
<b>Regrettable Expenditures</b>	3.30	2.72	3.92	3.82	4.00	4.57	3.15

Source: IEWB Database 2018, Table 1

## IV. Trends in the Stocks of Wealth Domain

Society's stocks of wealth—both man-made and natural—determine the sustainability of its current level of consumption. The wealth domain could, therefore, also be called the sustainability domain. This section examines the five main components of the wealth domain: physical capital stock, R&D stock, the stock of natural resources, net international position, and human capital. The sum of the five components is adjusted to account for the social costs of environmental degradation by subtracting the estimated annual cost of greenhouse gas emissions from the total stock of wealth. Chart 20 shows the components of the wealth domain for Newfoundland and Labrador in 1981, 2000, 2008, 2014, and 2018.

**Chart 20: Components of the Stocks of Wealth Domain for Newfoundland and Labrador in 1981, 2000, 2008, 2014, and 2018**

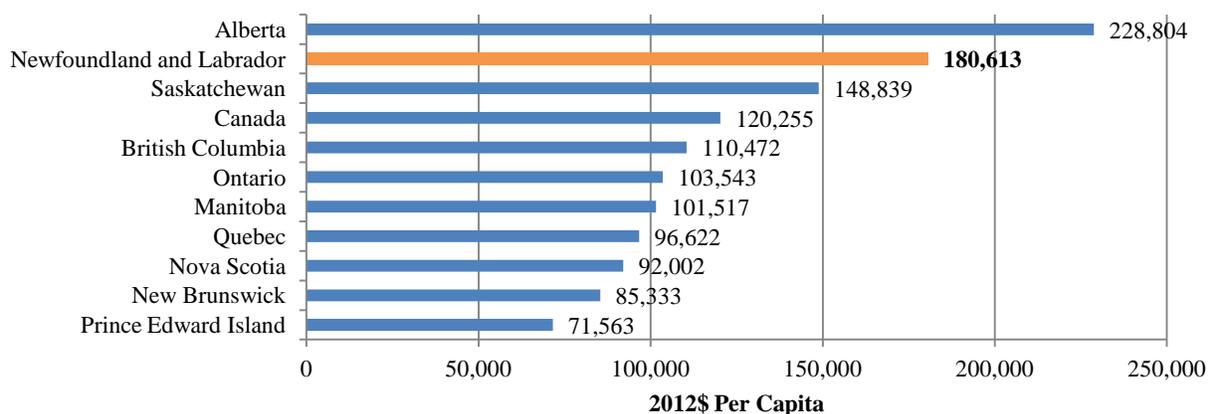


Source: IEWB Database 2018, Table 2

### A. Physical Capital

The Index of Economic Well-being defines net capital stock as residential and non-residential capital stock based on geometric depreciation. In 2018, Newfoundland and Labrador had a net capital stock of \$180,613 per capita, which represented the largest share of total wealth at 62.6 per cent (Chart 21). Compared to the rest of Canada, the province ranked a notable second. In contrast, the other Atlantic provinces had the lowest net capital stocks per capita, remaining below \$100,000 per capita. Top-ranking Alberta exceeded Newfoundland and Labrador by a wide margin at \$228,804 per capita.

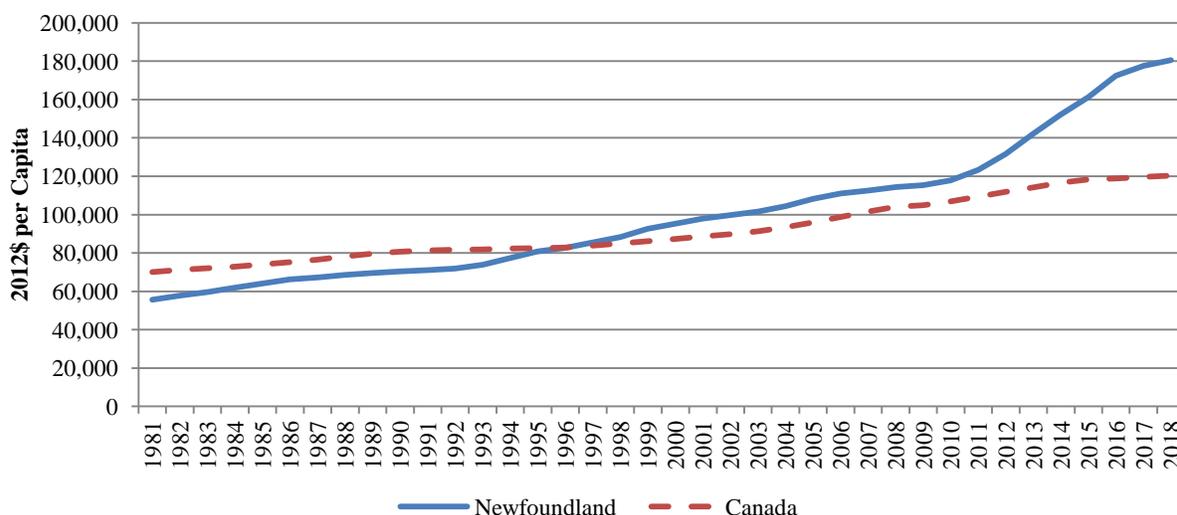
**Chart 21: Net Capital Stock per Capita by Province, 2018**



Source: IEWB Database 2018, Table 2

Newfoundland and Labrador enjoyed strong growth in per-capita net capital stock over the period and continuously exceeded Canada’s from 1997 to 2018 (Chart 22). The province’s net capital stock per capita grew an impressive 225.1 per cent or 3.24 per cent annually since 1981, compared to Canada’s 71.6 per cent or 1.47 per cent annually over the period. Newfoundland and Labrador’s growth in net capital stock per capita was stronger in the latter half of the period; per-capita net capital stock grew 2.88 per cent annually in the 1981-2000 sub-period, but increased even faster in the 2000-2018 sub-period at 3.62 per cent per year. It grew the fastest from 2008 to 2014 at 4.87 per cent annually.

**Chart 22: Net Capital Stock per Capita in Newfoundland and Canada, 1981-2018**



Source: IEWB Database 2018, Table 2

Net capital stock per capita in Newfoundland and Labrador has consistently comprised a larger share of non-residential capital than residential (Table 4). In 2018, non-residential capital

made up 67.6 per cent of total net capital stock. In addition, non-residential capital grew faster than residential capital over the period, particularly after 2008 (Table 4). In the 2008-2018 sub-period, non-residential capital increased dramatically by 6.70 per cent per year, while residential capital grew at the much slower annual rate of 2.50 per cent. As a result, the province's rapid growth in total net capital stock per capita was mostly driven by the growth in non-residential capital.

**Table 4: Sub-Components of Net Capital Stock per Capita in Newfoundland, 1981-2018**

**Panel A: Absolute Values**

	1981	2000	2008	2014	2018
	<b>Millions of 2012\$</b>				
<b>Non-Residential</b>	20,618	31,384	34,502	50,902	64,171
<b>Residential</b>	11,347	18,913	24,020	29,470	30,760
	<b>2012\$ per Capita</b>				
<b>Net Capital Stock (Total)</b>	55,562	95,266	114,394	152,174	180,613

**Panel B: Compound Annual Growth Rates**

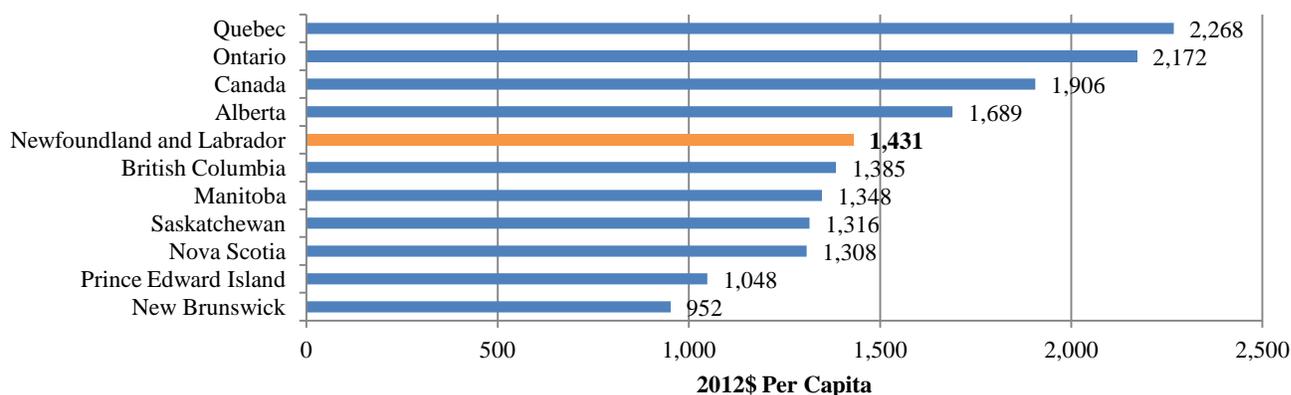
	1981-2018	1981-2000	2000-2018	2000-2008	2008-2018	2008-2014	2014-2018
	<b>Per Cent</b>						
<b>Non-Residential</b>	3.12	2.24	4.05	1.19	6.40	6.70	5.96
<b>Residential</b>	2.73	2.73	2.74	3.03	2.50	3.47	1.08
<b>Net Capital Stock (Total)</b>	3.24	2.88	3.62	2.31	4.67	4.87	4.38

Source: IEWB Database 2018, Appendix Table 7

## B. R&D Capital

In 2018, R&D stock in Newfoundland and Labrador was \$1,431 per capita, which comprised the smallest share of total wealth at 0.50 per cent (Chart 23). Newfoundland and Labrador ranked fourth of the ten provinces and first of the Atlantic provinces. Similar to the rankings for net capital stock, Newfoundland and Labrador was exceptional in the Atlantic region, as the other Atlantic provinces had the lowest R&D stock in Canada.

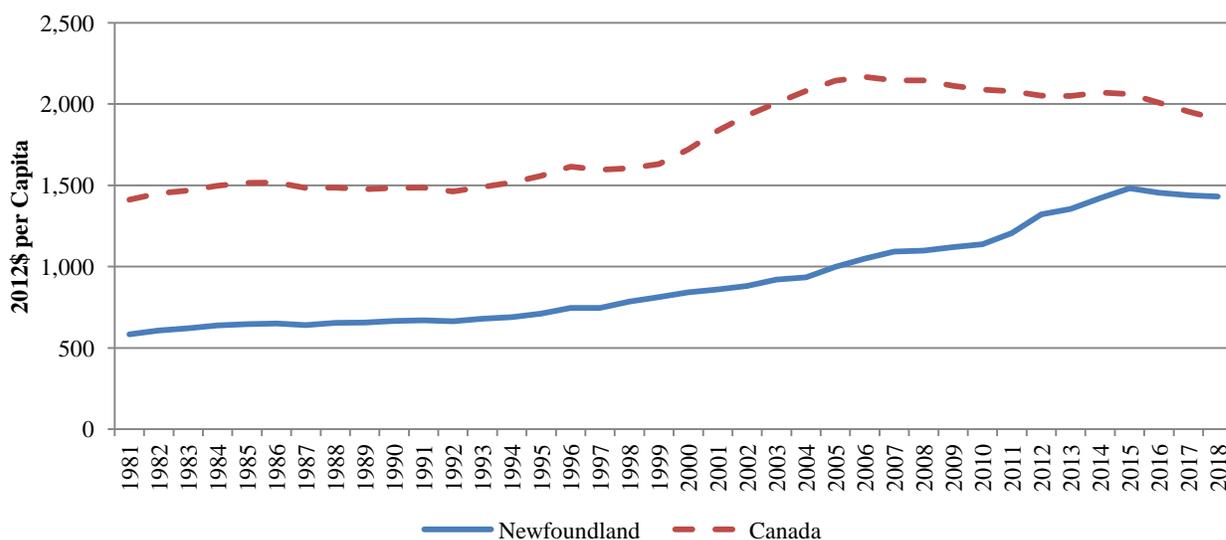
**Chart 23: R&D Stock per Capita by Province, 2018**



Source: IEWB Database 2018, Table 2

Growth in R&D stocks was strong over the period (Chart 24). Between 1981 and 2018, Newfoundland and Labrador’s R&D capital grew 145.0 per cent or 2.45 per cent per year, though it never reached the national level. In contrast, Canada’s R&D stocks increased only 35.0 per cent or 0.82 per cent annually. Similar to net capital stock, Newfoundland and Labrador’s R&D stock grew faster in the 2000-2018 sub-period at 3.00 per cent annually than in the earlier 1981-2000 sub-period at 1.94 per cent annually. In particular, R&D stock in the province accelerated between 2008 and 2014 at 4.39 per cent per year.

**Chart 24: R&D Stock per Capita in Newfoundland and in Canada, 1981-2018**

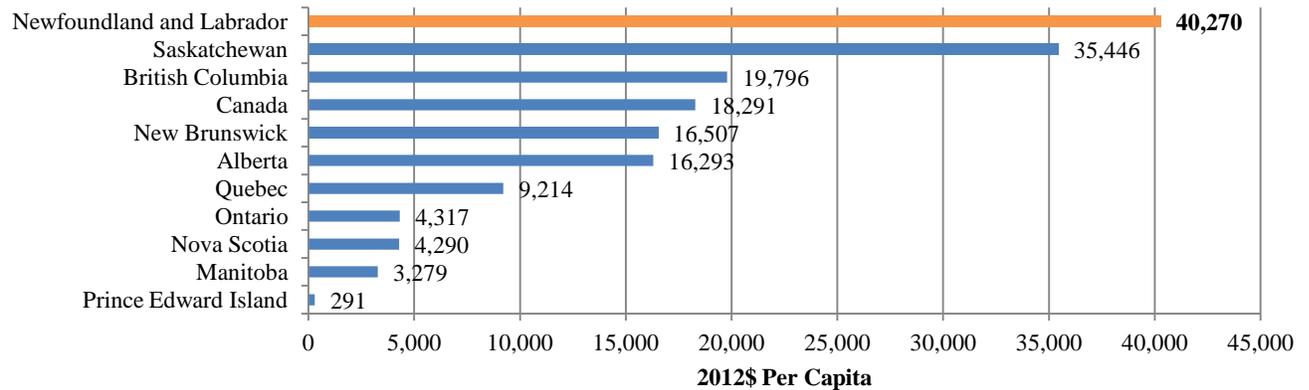


Source: IEWB Database 2018, Table 2

## C. Natural Resources

In 2018, the total value of natural resources in Newfoundland and Labrador was \$40,270 per capita, which accounted for 14.0 per cent of total wealth (Chart 25). Newfoundland and Labrador had the highest level of natural resources among the provinces. The value of natural resources differed significantly across Canada. Prince Edward Island, for example, had the lowest value of natural resources at \$291 per capita, only 0.72 per cent of Newfoundland and Labrador's.

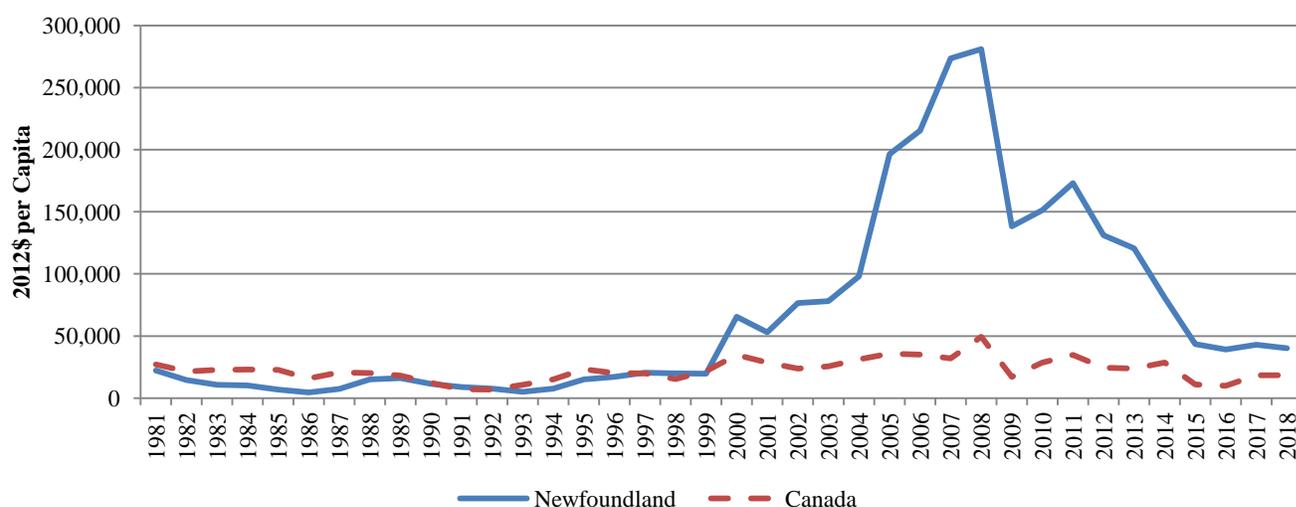
**Chart 25: Natural Resources Stock per Capita by Province, 2018**



Source: IEWB Database 2018, Table 2

The value of natural resources in Newfoundland and Labrador generally increased over the period, but experienced much volatility (Chart 26). By 2018, the value of natural resources increased 80.6 per cent from its 1981 level of \$22,294 per capita. However, the growth in the value of natural resources was unstable between 2000 and 2018. From 2000 to 2008, the value of natural resources grew at a rate of 19.95 per cent per year, peaking at \$280,877 per capita in 2008. Following this period, however, the value of natural resources declined substantially. In the 2008 to 2014 sub-period, the value of natural resources in Newfoundland and Labrador decreased by 18.74 per cent per year. Towards the end of the period, between 2014 and 2018, the growth rate improved slightly, but the value of natural resources still faced significant decline at -16.0 per cent annually. Canada, by contrast, experienced relatively stable though negative growth between 1981 and 2018, decreasing at an annual rate of 1.05 per cent.

**Chart 26: Natural Resources Stock per Capita in Newfoundland and in Canada, 1981-2018**



Source: IEWB Database 2018, Table 2

We define the value of natural resources as the value of timber stocks, mineral resources, and energy resources. After 2008, energy resources comprised the largest share of natural resources in Newfoundland and Labrador, followed by mineral resources (Table 5). These sectors play key roles in the province’s economy. As a result, these two sub-components were the main drivers behind the volatile trends in the value of natural resources in Newfoundland and Labrador over the period. Between 2000 and 2008, mineral resources and energy resources grew by 31.6 per cent and 29.7 per cent per year, respectively, reflecting growth in the mineral and oil and gas extraction sectors. In the 2008-2014 sub-period, however, mineral resources declined by 19.2 per cent annually and energy resources by 16.8 per cent annually, due to a collapse in oil and gas output following the 2008 recession. The rising value of timber stocks between 2008 and 2014 partially cushioned the impact of the falling values of mineral and energy resources on total natural resources.

**Table 5: Sub-Components of Total Natural Resources per Capita in Newfoundland, 1981-2018**  
**Panel A: Absolute Values**

	1981	2000	2008	2014	2018
	<b>Millions of 2012\$</b>				
<b>Timber Stocks</b>	1,667	5,139	1,828	2,352	3,470
<b>Mineral Resources</b>	2,694	3,224	29,017	8,102	6,269
<b>Energy Resources</b>	0	12,649	101,063	33,466	11,977
	<b>2012\$ per Capita</b>				
<b>Natural Resources (Total)</b>	22,294	65,562	280,877	80,892	40,270

### Panel B: Compound Annual Growth Rates

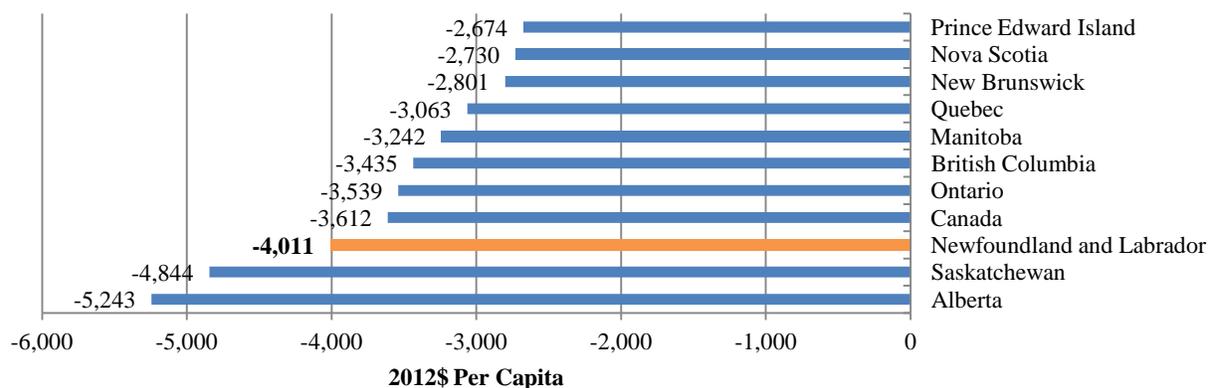
	1981-2018	1981-2000	2000-2018	2000-2008	2008-2018	2008-2014	2014-2018
	Per Cent						
<b>Timber Stocks</b>	2.00	6.10	-2.16	-12.12	6.62	4.29	10.21
<b>Mineral Resources</b>	2.31	0.95	3.76	31.61	-14.21	-19.15	-6.21
<b>Energy Resources</b>	0.00	0.00	-0.30	29.66	-19.21	-16.82	-22.65
<b>Natural Resources (Total)</b>	1.61	5.84	-2.67	19.95	-17.65	-18.74	-16.00

Source: IEWB Database 2018, Appendix Table 10, 11, 12, & 13

## D. Net International Investment Position

In 2018, Newfoundland and Labrador's net international investment position was estimated to be negative \$4,011 per capita (Chart 27).<sup>13</sup> Among the provinces, Newfoundland and Labrador ranked eighth. The province was an outlier among the Atlantic region, as the three other Atlantic provinces had the lowest international debt per capita in Canada.

**Chart 27: Net International Investment per Capita in Newfoundland and Canada, 1981-2018**

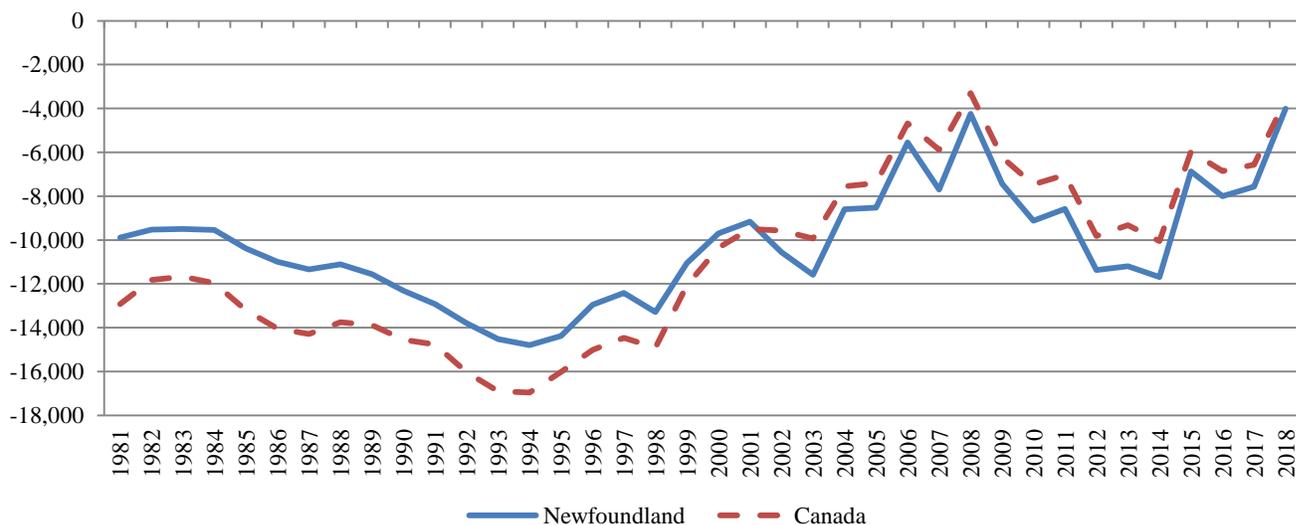


Source: IEWB Database 2018, Table 2

Between 1981 and 2018, Newfoundland and Labrador improved its net international investment position (Chart 28). By 2018, the province decreased its international indebtedness by 59.5 per cent from its 1981 level of negative \$9,892 per capita. This improvement was mostly concentrated in the 2000-2018 sub-period. In particular, between 2014 and 2018, the province's net international investment position improved at a significant rate of 23.5 per cent per year.

<sup>13</sup> No data are available on the provincial distribution of foreign assets and liabilities. We estimate provincial data by weighting the national value by provincial shares of national GDP, assuming that such assets and liabilities directly relate to the amount of economic activity in a province.

**Chart 28: Net International Investment per Capita in Newfoundland and Canada, 1981-2018**

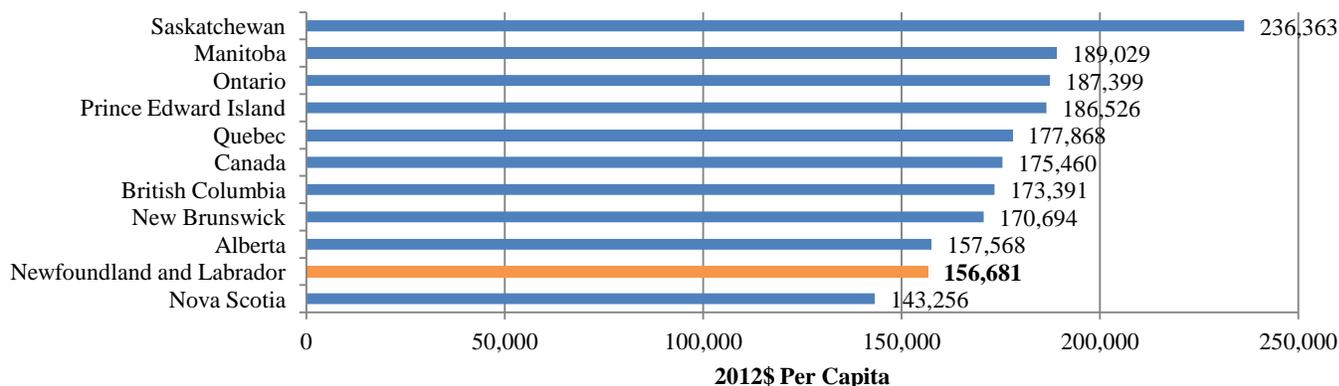


Source: IEWB Database 2018, Table 2

### E. Human Capital

The Index of Economic Well-being defines human capital as the accumulated private and public expenditures on education.<sup>14</sup> In 2018, the value of human capital in Newfoundland and Labrador was \$156,681 per capita, which comprised the second largest share of total wealth after net capital stock (Chart 29). Compared to the other provinces, Newfoundland and Labrador had low human capital stock, ranking ninth. The other Atlantic provinces, apart from Prince Edward Island, ranked low in Canada in terms of human capital stock per capita.

**Chart 29: Human Capital Stock per Capita by Province, 2018**

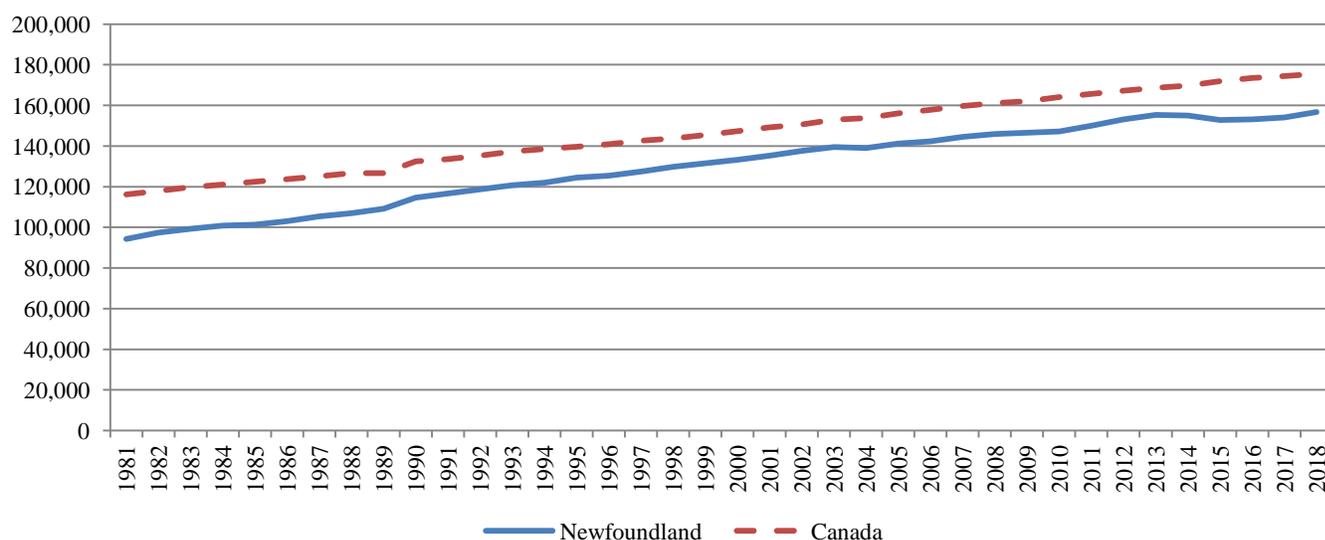


Source: IEWB Database 2018, Table 2

<sup>14</sup> The value of human capital is based on estimates of the cost of education in 2009/2010 and enrolment numbers from different years.

Although it never reached the national level, human capital stock per capita in Newfoundland and Labrador improved from 1981 to 2018, increasing 66.1 per cent or 1.38 per cent per year from its 1981 level of \$94,319 per capita. The province's overall growth in human capital stock was greater than Canada's, which grew 50.9 per cent or 1.12 per cent annually over the period. Human capital per capita in Newfoundland and Labrador grew much faster in the 1981-2000 sub-period at 1.83 per cent per year than the post-2000 sub-period at 0.91 per cent per year.

**Chart 30: Human Capital Stock per Capita in Newfoundland and Canada, 1981-2018**



Source: IEWB Database 2018, Table 2

Growth in post-secondary education spending largely drove the growth in total human capital in Newfoundland and Labrador (Table 6). Between 1981 and 2018, the values of post-secondary and university education increased by 3.82 per cent and 3.18 per cent annually. In contrast, the values of primary and secondary education decreased, driving down the growth rate of total human capital. Moreover, the growth in spending at the post-secondary level slowed between 2000 and 2018, which in turn led to slower growth in total human capital during this sub-period.

**Table 6: Sub-components of Human Capital per Capita in Newfoundland, 1981-2018**

**Panel A: Absolute Values**

	1981	2000	2008	2014	2018
	Billions of 2012\$				
<b>0-8 Years</b>	13.38	6.54	4.92	3.97	3.10
<b>Some Secondary Education</b>	21.08	11.36	9.20	7.94	7.46
<b>Graduated from High School</b>	N/A	9.55	10.58	11.21	12.29
<b>Some Post-</b>	4.34	6.16	6.02	4.26	3.56

	1981	2000	2008	2014	2018
Secondary					
Post-Secondary Certificate/Diploma	8.11	23.77	26.02	30.35	32.48
University Degree	7.34	12.94	17.90	24.15	23.47
	<b>2012\$ per Capita</b>				
Human Capital (Total)	94,319	133,179	145,899	155,037	156,681

### Part B: Compound Annual Growth Rates

	1981-2018	1981-2000	2000-2018	2000-2008	2008-2018	2008-2014	2014-2018
	<b>Per Cent</b>						
0-8 Years	-3.87	-3.70	-4.05	-3.48	-4.51	-3.50	-5.99
Some Secondary Education	-2.77	-3.20	-2.31	-2.61	-2.08	-2.42	-1.56
Graduated from High School	N/A	N/A	1.41	1.29	1.51	0.98	2.31
Some Post-Secondary	-0.54	1.85	-3.00	-0.29	-5.12	-5.61	-4.38
Post-Secondary Certificate/Diploma	3.82	5.82	1.75	1.14	2.24	2.60	1.71
University Degree	3.19	3.03	3.36	4.14	2.75	5.12	-0.71
Human Capital (Total)	1.38	1.83	0.91	1.15	0.72	1.02	0.26

Source: IEWB Database 2018, Appendix Table 15

## F. Social Cost of Environmental Degradation

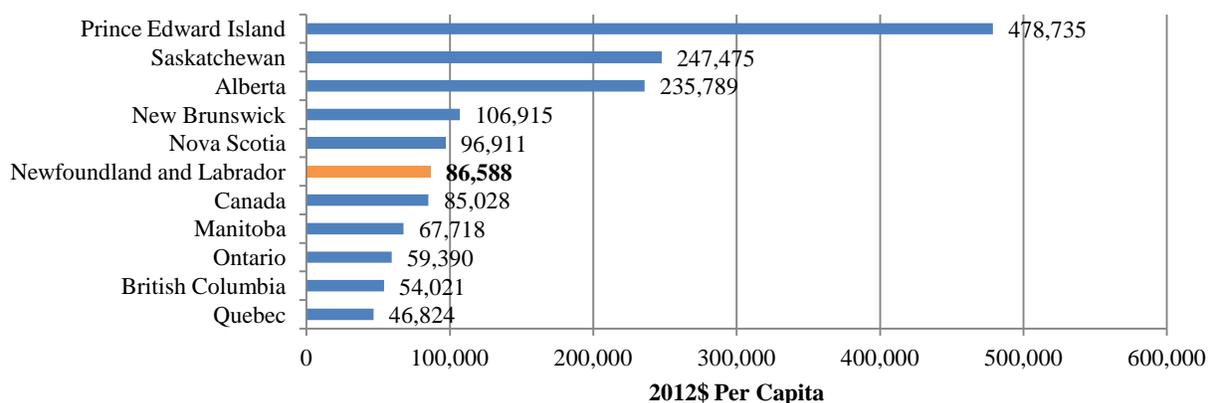
Environmental degradation negatively affects the sustainability of stocks of wealth. Although placing a value on environment is controversial,<sup>15</sup> the Index of Economic Well-being includes estimates of the social costs of greenhouse gases (GHG) to highlight the importance of the environment to economic well-being. To adjust for environmental degradation, we subtract the estimated social costs of GHG emissions from total wealth. The social cost of emissions in each year is derived by multiplying the amount of greenhouse gas emissions by their social cost.<sup>16</sup> As we assume that the costs of environmental degradation are not dissipated each year, we sum the social costs of the previous years to estimate the total accumulated social costs of a given year.

In 2018, the total cumulative social cost of GHG emissions since 1981 was \$86,588 per capita in Newfoundland and Labrador (Chart 31). Among the provinces, Newfoundland and Labrador ranked sixth, exceeding the national level. In the Atlantic region, Newfoundland and Labrador had the lowest total social cost of greenhouse gases, but every Atlantic province had higher social costs than the Canadian average.

<sup>15</sup> See Sharpe *et al.* (2008) for a brief discussion of the methodological challenges on the estimation of marginal social costs of GHG emissions.

<sup>16</sup> The social cost is assumed to be \$125 CAD per ton in 2012 dollars.

**Chart 31: Total Social Cost of Greenhouse Gas Emissions per Capita by Province, 2018**

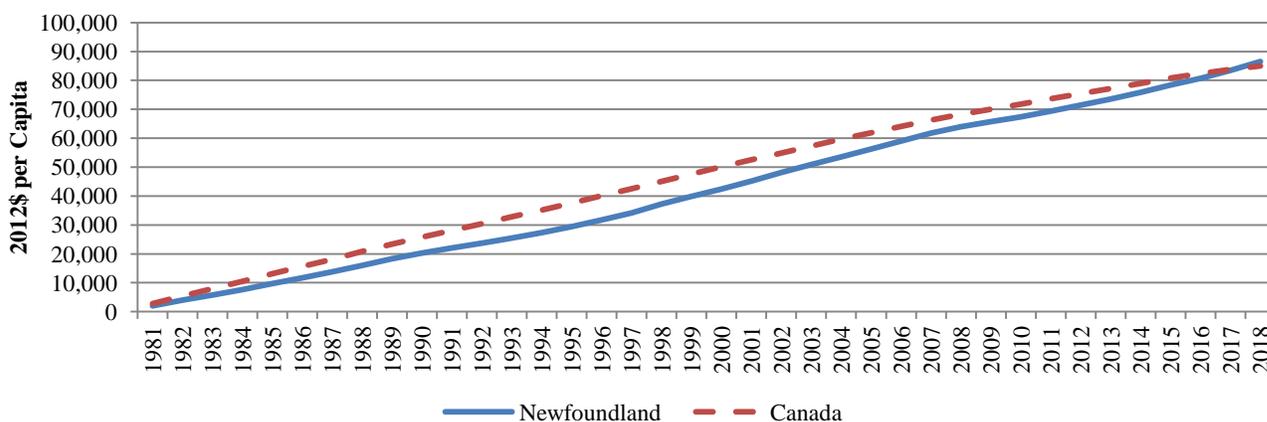


Source: IEWB Database 2018, Table 2

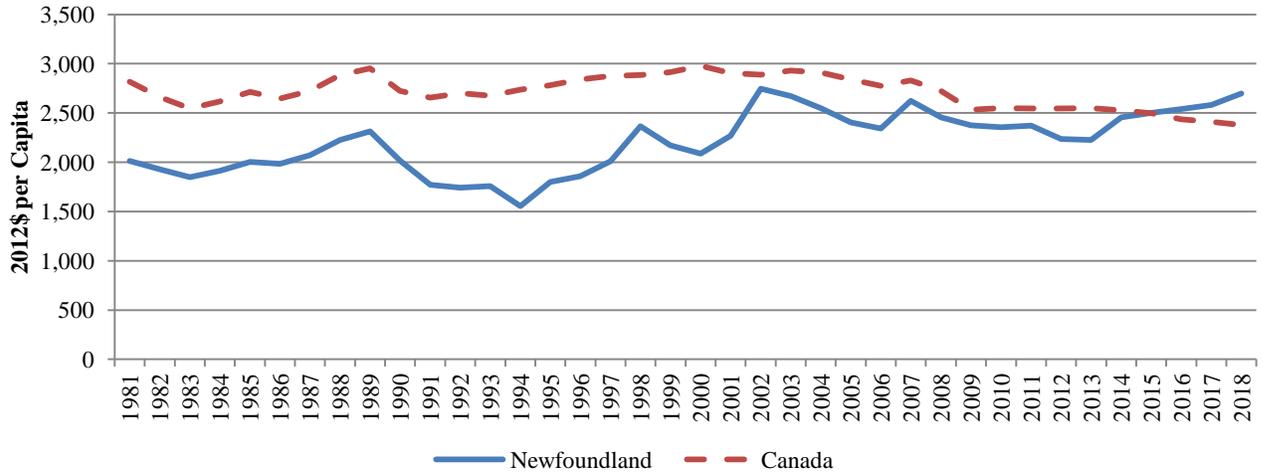
Between 1981 and 2018, Newfoundland and Labrador’s accumulated social cost of GHG emissions increased 10.7 per cent annually (Chart 32). The province’s annual social cost grew 0.79 per cent annually from \$2,013 per capita in 1981 to \$2,698 per capita in 2018. Newfoundland and Labrador exceeded Canada’s per-capita accumulated social cost in 2018 and per-capita marginal cost in 2015. The annual social cost of GHG in the province grew fastest in the 2000-2018 sub-period at 1.43 per cent per year, compared to only 0.19 per cent per year between 1981 and 2000. In particular, between 2014 and 2018, the annual social cost of GHG increased at an annual rate of 2.38 per cent.

**Chart 32: Social Cost of Greenhouse Gas Emissions per Capita in Newfoundland and Canada, 1981-2018**

**Panel A: Accumulated Social Cost**



**Panel B: Annual Social Cost**

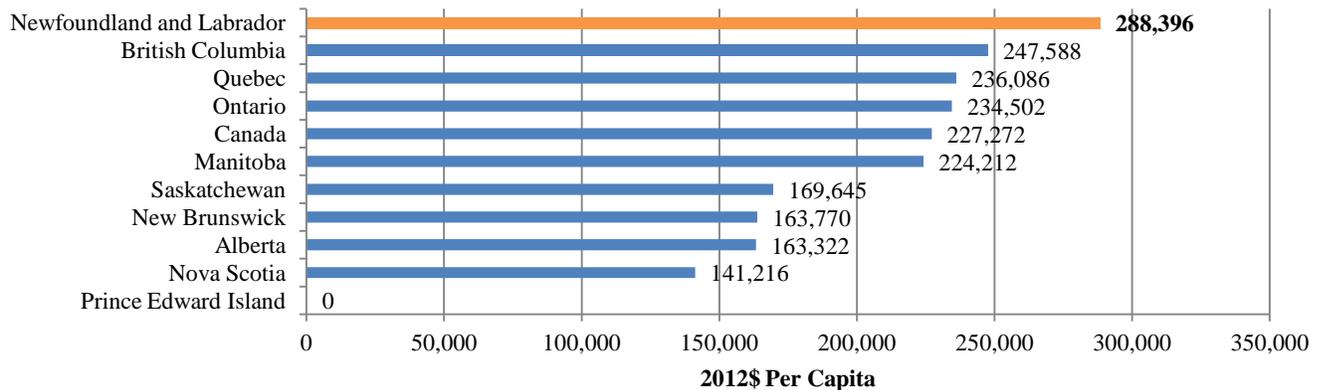


Source: IEWB Database 2018, Appendix Table 9

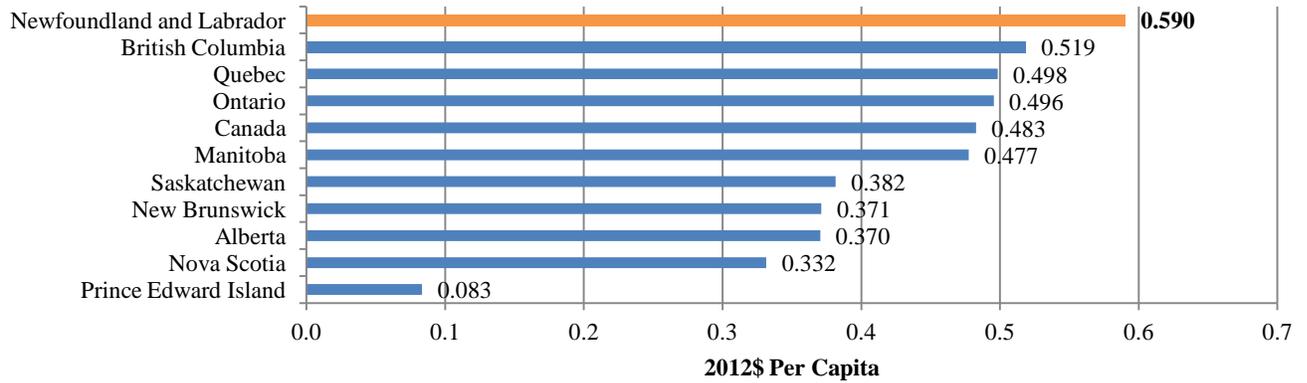
**G. Total Wealth Stocks**

To estimate the total stock of wealth, we sum the five components and adjust for the social cost of greenhouse gases. Total wealth is then scaled to generate the index of the stock of wealth domain of the overall Index of Economic Well-being. In 2018, Newfoundland and Labrador totaled \$288,396 per capita in wealth stocks, scoring 0.59 in the index of the stock of wealth domain (Chart 33). Among the provinces, Newfoundland and Labrador had the highest total wealth per capita. In contrast, the other Atlantic provinces had the lowest, which reveals that Newfoundland and Labrador was an outlier in the region.

**Chart 33: Total Wealth per Capita by Province, 2018**  
**Panel A: Per Capita**



**Panel B: Scaled (Index of the Stock of Wealth Domain)**

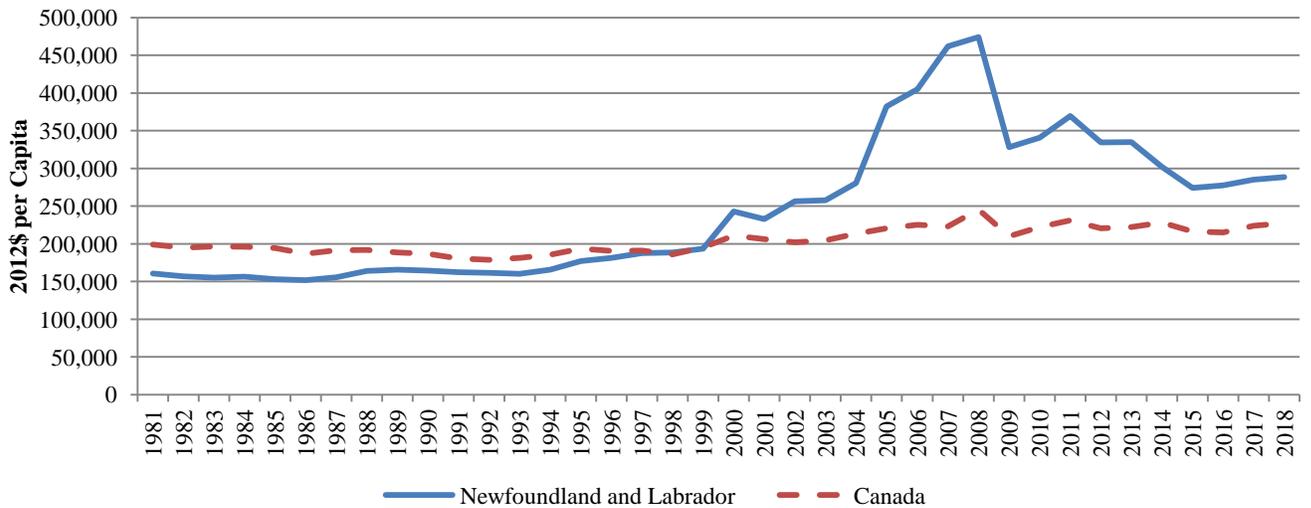


Source: IEWB Database 2018, Table 2

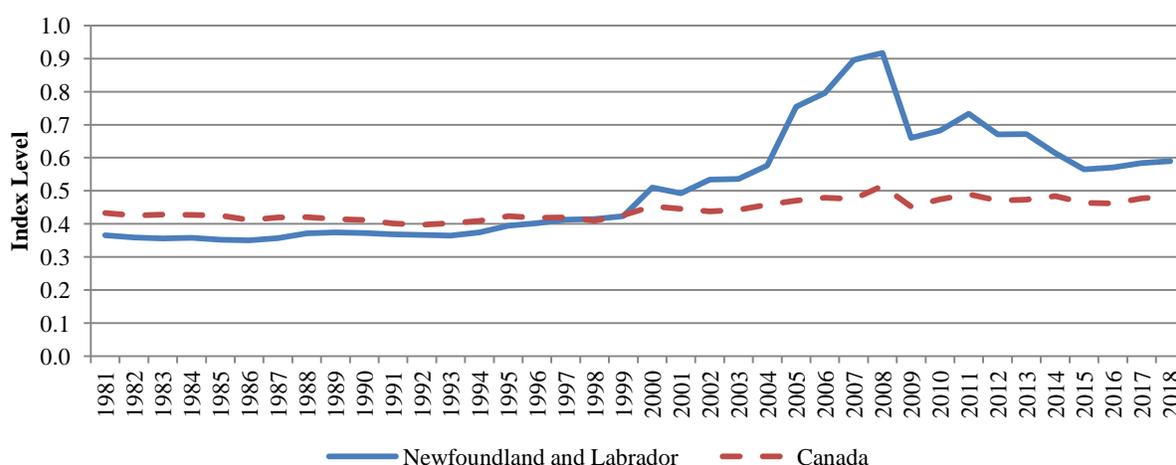
Similar to total consumption, Newfoundland and Labrador enjoyed a significant improvement in total wealth between 1981 and 2018 (Chart 34). Total wealth stocks grew 79.3 per cent or 1.59 per cent annually from its 1981 level of \$160,854 per capita. In comparison, Canada’s total wealth grew 14.2 per cent or 0.36 per cent per year. During this period, the index of the stock of wealth domain for Newfoundland and Labrador increased 0.22 points, compared to Canada’s increase of 0.05 points.

**Chart 34: Total Wealth per Capita in Newfoundland and Canada, 1981-2018**

**Panel A: Absolute Values**



**Panel B: Scaled (Index of the Stock of Wealth Domain)**



Source: IEWB Database 2018, Table 2

Table 7 summarizes the findings for the components of the wealth domain in Newfoundland and Labrador from 1981 to 2018. By 2018, net capital stock and natural resources exceeded the national level by a significant margin, which likely explains the province’s high total wealth relative to Canada. However, net international investment position and the social cost of GHG emissions (total and marginal) in the province were also much larger than Canada’s. Furthermore, among the components, R&D stock and human capital stock had the lowest levels relative to Canada, though they had increased since 1981.

All components, with the exception of the social cost of GHG, improved between 1981 and 2018 (Table 7). Net capital stock, R&D capital, and net international investment position experienced the strongest improvement at annual rates of 3.24, 2.45, and 2.41 per cent, respectively, over the period. However, the social cost of GHG emissions (total and marginal) increased, while natural resources declined significantly after 2008. As a result, growth in total wealth slowed towards the end of the period between 2000 and 2018, and was even negative between 2008 and 2018.

**Table 7: Summary of Stocks of Wealth Components per Capita in Newfoundland and Labrador, 1981-2018**

**Panel A: Absolute Values**

	1981	2000	2008	2014	2018
	<b>2012\$ per Capita</b>				
<b>Net Capital Stock</b>	55,562	95,266	114,394	152,174	180,613
<b>R&amp;D Stock</b>	584	841	1,099	1,422	1,431
<b>Natural Resources Stock</b>	22,294	65,562	280,877	80,892	40,270
<b>Net International Investment Position</b>	-9,892	-9,704	-4,243	-11,695	-4,011
<b>Human Capital Stock</b>	94,319	133,179	145,899	155,037	156,681

	1981	2000	2008	2014	2018
<b>Greenhouse Gas Social Cost (Total)</b>	-2,013	-42,382	-63,949	-75,855	-86,588
<b>GHG Social Cost (Marginal)</b>	2,013	2,089	2,549	2,456	2,698
<b>Total Wealth</b>	160,854	242,762	474,077	301,974	288,396

**Panel B: Relative to Canada's**

	1981	2000	2008	2014	2018
	<b>Per Cent of Canada's</b>				
<b>Net Capital Stock</b>	79.3	109.1	109.9	130.4	150.2
<b>R&amp;D Stock</b>	41.4	48.9	51.2	68.7	75.1
<b>Natural Resources Stock</b>	82.6	188.7	568.4	282.4	220.2
<b>Net International Investment Position</b>	76.5	93.8	128.6	116.4	111.0
<b>Human Capital Stock</b>	81.1	90.4	90.5	91.3	89.3
<b>Greenhouse Gas Social Cost (Total)</b>	71.4	84.5	93.6	96.1	101.8
<b>GHG Social Cost (Marginal)</b>	71.4	70.1	90.2	97.2	113.5
<b>Total Wealth</b>	80.8	115.2	193.3	132.4	126.9

**Panel C: Compound Annual Growth Rates**

	1981-2018	1981-2000	2000-2018	2000-2008	2008-2018	2008-2014	2014-2018
	<b>Per Cent</b>						
<b>Net Capital Stock</b>	3.24	2.88	3.62	2.31	4.67	4.87	4.38
<b>R&amp;D Stock</b>	2.45	1.94	3.00	3.40	2.68	4.39	0.15
<b>Natural Resources Stock</b>	1.61	5.84	-2.67	19.95	-17.65	-18.74	-16.00
<b>Net International Investment Position</b>	-2.41	-0.10	-4.79	-9.82	-0.56	18.41	-23.47
<b>Human Capital Stock</b>	1.38	1.83	0.91	1.15	0.72	1.02	0.26
<b>Greenhouse Gas Social Cost (Total)</b>	10.70	17.39	4.05	5.28	3.08	2.89	3.36
<b>GHG Social Cost (Marginal)</b>	0.79	0.19	1.43	2.04	0.95	0.01	2.38
<b>Total Wealth</b>	1.59	2.19	0.96	8.73	-4.85	-7.24	-1.14

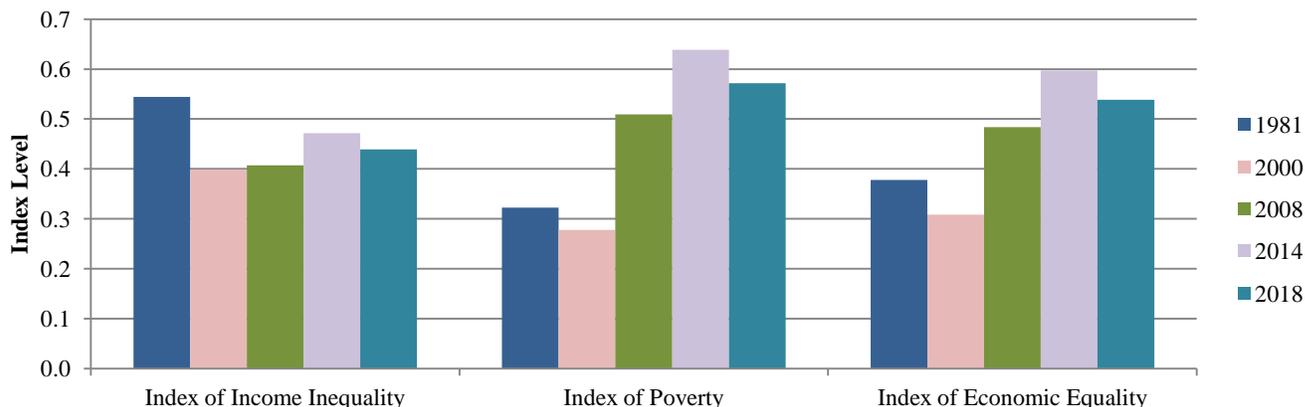
Source: IEWB Database 2018, Table 2

Note: For the compound annual growth rates of net international investment position, positive growth indicates increased indebtedness. Thus, negative growth indicates an improvement.

## V. Trends in the Economic Equality Domain

A fall in equality has a negative impact on economic well-being, and vice versa. This section examines the two components of economic equality: income inequality and poverty. Chart 35 shows the components of the economic equality domain in Newfoundland and Labrador between 1981 and 2018. We measure income inequality by using the scaled Gini coefficient, constructed by Statistics Canada, and we measure poverty by using scaled poverty intensity, which is the product of the poverty rate and poverty gap.<sup>17</sup> The poverty rate is defined in relative terms, using Statistics Canada’s Low Income Measure (LIM), as the share of Canadians who live below the poverty line (fifty per cent of median family income). The poverty gap is the average difference between the poverty line and incomes of those in poverty.

**Chart 35: Components of the Economic Equality Domain in Newfoundland and Labrador, 1981, 2000, 2008, 2014 and 2018**



Source: IEWB Database 2018, Table 3

The weighting of these two components is not equal. As we consider poverty to be more detrimental to well-being than income inequality, we assign poverty intensity a weight of three quarters and income a weight of one quarter to determine the overall Index of Economic Equality. Therefore, changes in poverty, as opposed to changes in the Gini coefficient, will more significantly drive the trends in economic equality.

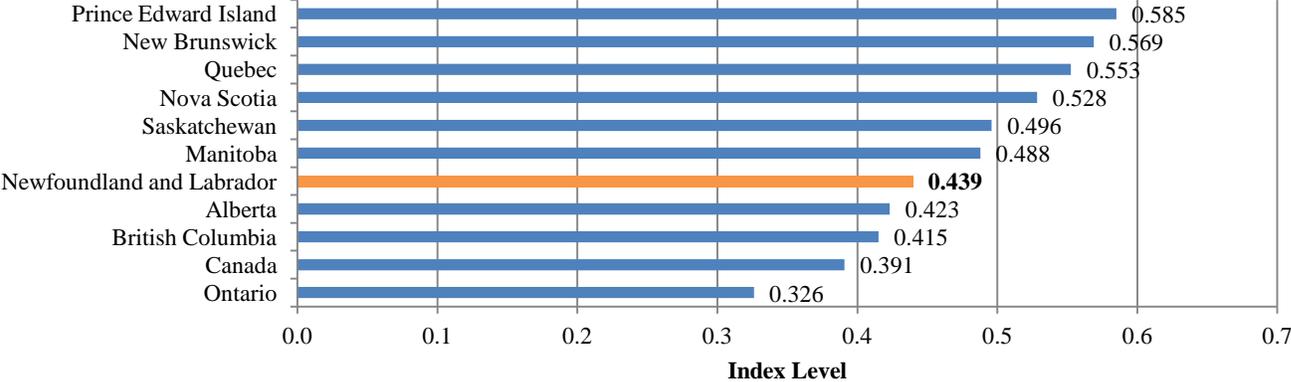
### A. Income Inequality

In 2018, Newfoundland and Labrador’s index of income equality, which is the scaled Gini coefficient, scored 0.439, ranking seventh of the provinces (Chart 36). Newfoundland and

<sup>17</sup> The Gini coefficient for all families in Canada is based on after-tax income. While increases in most economic indicators signify an improvement, an increase in the Gini coefficient indicates a decrease in equality. As such, when scaling the Gini coefficient to generate the index of income equality, we transformed it such that a higher score indicates an increase in equality. Similarly, for the index of poverty, a higher score indicates an improvement in poverty intensity.

Labrador ranked much lower than the other Atlantic provinces, which were the most equitable in terms of after-tax income in Canada. Only Alberta, British Columbia, and Ontario had worse income inequality than Newfoundland and Labrador.

**Chart 36: Index of Income Equality by Province, 2018**

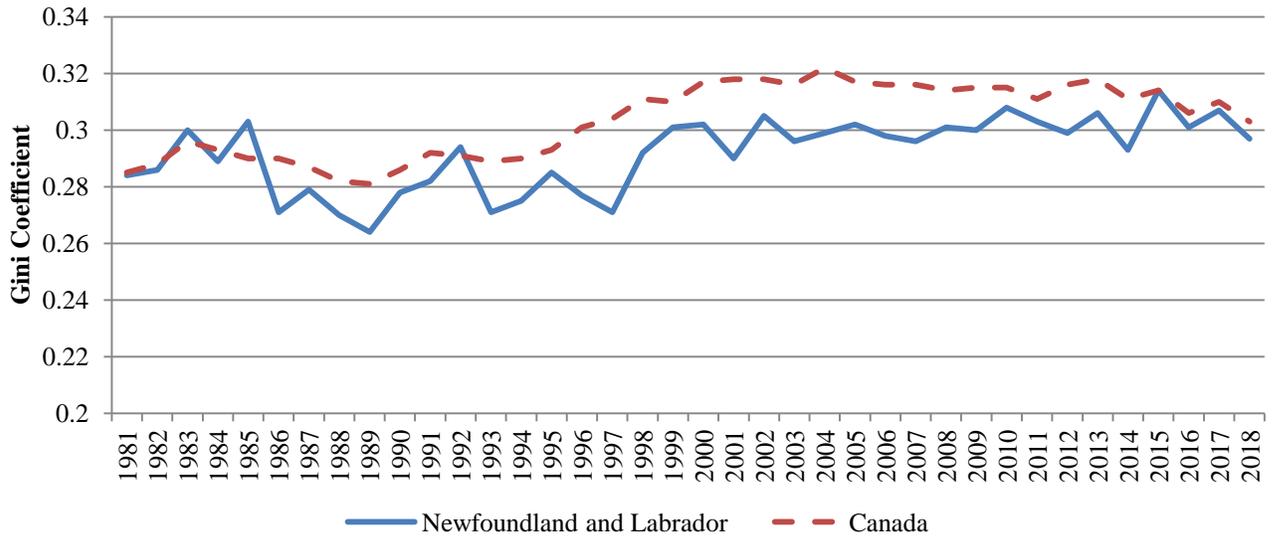


Source: IEWB Database 2018, Table 3

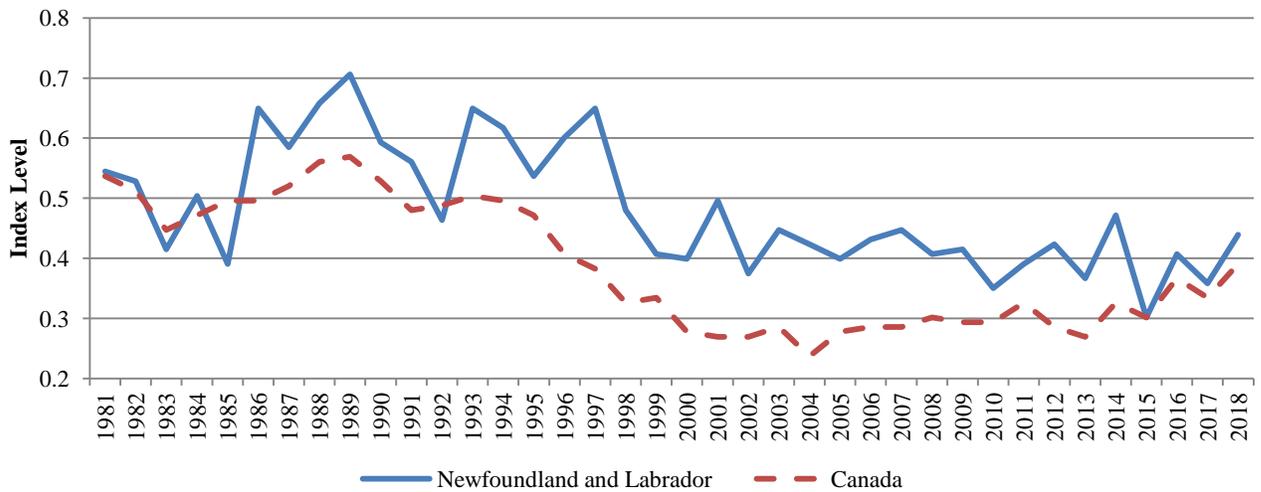
Income equality in Newfoundland and Labrador deteriorated between 1981 and 2018 (Chart 37). Over the period, the province’s index of income equality decreased 0.11 points from 0.544 in 1981 to 0.439 in 2018, indicating higher inequality. This decline in the index was equivalent to a 0.013 point increase in the province’s Gini coefficient. The province’s score was also consistently higher than the national level over the period. Although income inequality in Newfoundland and Labrador did worsen over the period, Canada’s deterioration was slightly more severe; the index of income equality at the national level decreased 0.15 points.

The decline in income equality was mostly concentrated in the 1981-2000 sub-period (Chart 37). Between 1981 and 2000, the province’s index of income equality deteriorated 1.62 per cent annually, while it improved 0.54 per cent annually between 2000 and 2018. The index improved the most in the 2008-2014 sub-period at 2.49 per cent. However, between 2014 and 2018, the province’s score deteriorated at a rate of 1.76 per cent per year.

**Chart 37: Index of Income Equality in Newfoundland and Canada, 1981-2018**  
**Panel A: Gini Coefficient**



**Panel B: Index of Income Equality (Scaled Gini Coefficient)**

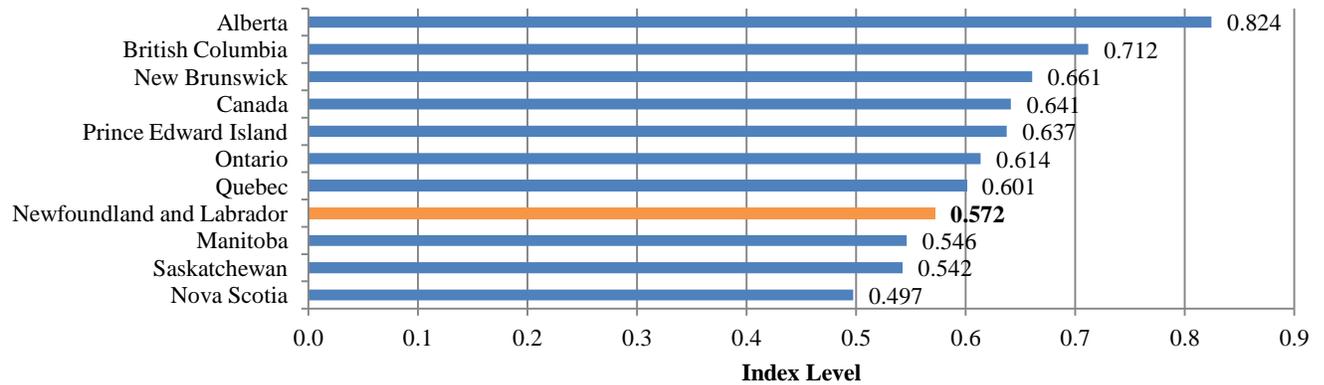


Source: IEWB Database 2018, Appendix Table 17

## B. Poverty Intensity

In 2018, Newfoundland and Labrador’s index of poverty, based on scaled estimates of poverty intensity, was 0.572 (Chart 38). Identical to its provincial ranking for the index of income equality, Newfoundland and Labrador ranked seventh among the provinces, signifying relatively high poverty intensity. Only Manitoba, Saskatchewan, and Nova Scotia received lower scores.

**Chart 38: Index of Poverty by Province, 2018**

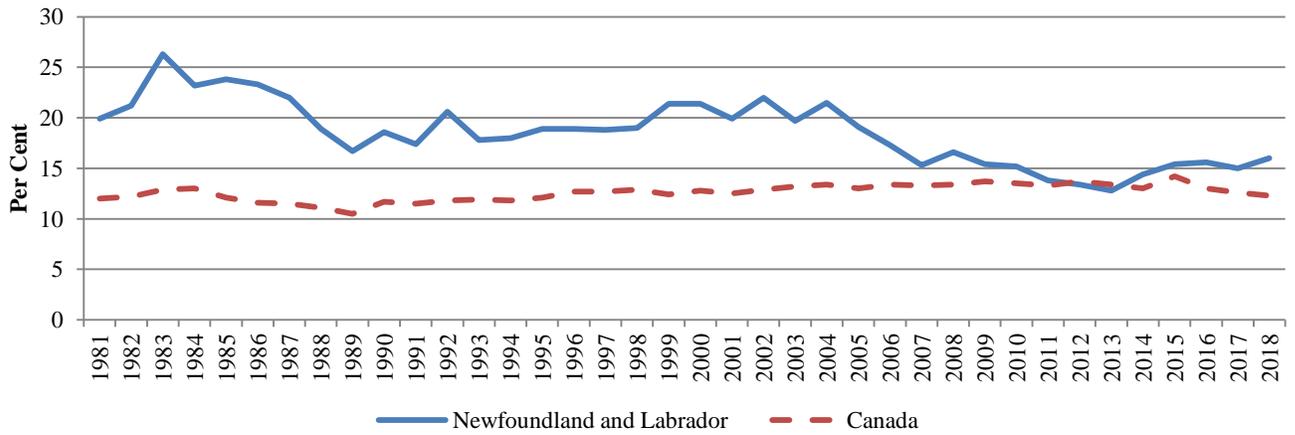


Source: IEWB Database 2018, Table 3

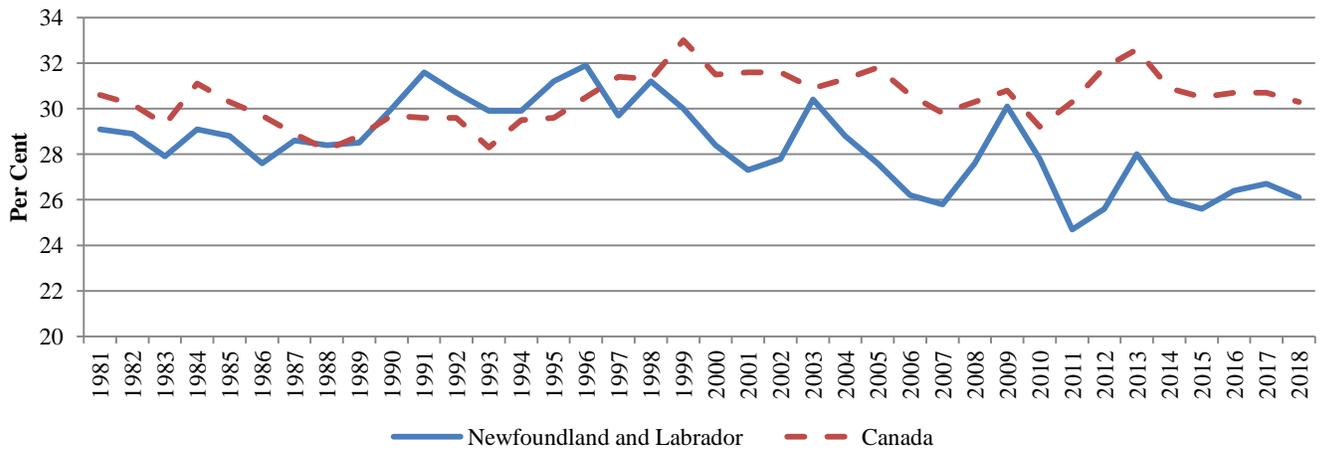
Despite its relatively low score in Canada, Newfoundland and Labrador's index of poverty did improve over the period, unlike the index of income equality (Chart 39). Between 1981 and 2018, the index of poverty improved 0.25 points from 0.322 in 1981 to 0.572 in 2018. Comparatively, Canada's score deteriorated 0.01 points since 1981, though its score by 1981 was generally higher than Newfoundland and Labrador's over the period. Similar to the index of income equality, improvement in the index of poverty mostly occurred after 2000. Between 2000 and 2018, the province's score increased 4.09 per cent annually, while it decreased by 0.78 per cent per year from 1981 to 2000. Growth was most impressive between 2000 and 2008 at a rate of 7.86 per cent annually but, after peaking in 2011, the province's score deteriorated again

Improvements in Newfoundland and Labrador's poverty rate and poverty gap fueled the overall improvement in the index of poverty between 1981 and 2018 (Chart 39). The poverty rate decreased 3.9 points from 19.9 per cent in 1981 to 16.0 per cent in 2018, while the poverty gap also decreased 3.0 points from 29.1 per cent in 1981 and 26.1 per cent in 2018. Although the poverty rate in the province remained higher than the national average by 2018, the two subcomponents of the index of poverty still improved significantly over the period.

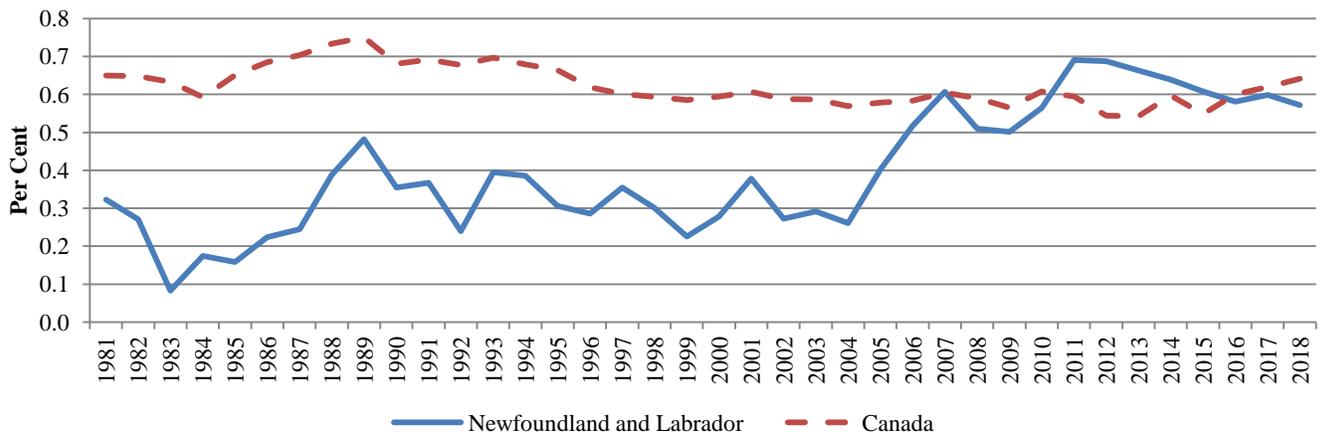
**Chart 39: Index of Poverty and its Subcomponents in Newfoundland and Canada, 1981-2018**  
**Panel A: Poverty Rate**



**Panel B: Poverty Gap**



**Panel C: Index of Poverty**

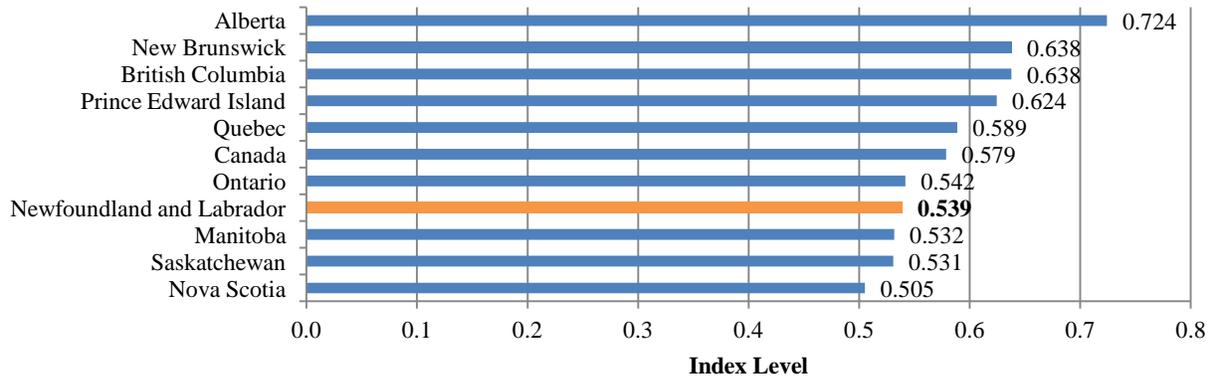


Source: IEWB Database 2018, Appendix Table 18

### C. Index of Economic Equality

As discussed previously, the index of the economic equality domain is the weighted sum of the index of income inequality and the index of poverty intensity, with more weight on the former. In 2018, the index of economic inequality in Newfoundland and Labrador was 0.539, ranking seventh (Chart 40). Alberta, the highest-ranked province at 0.724, exceeded Newfoundland and Labrador by a wide margin.

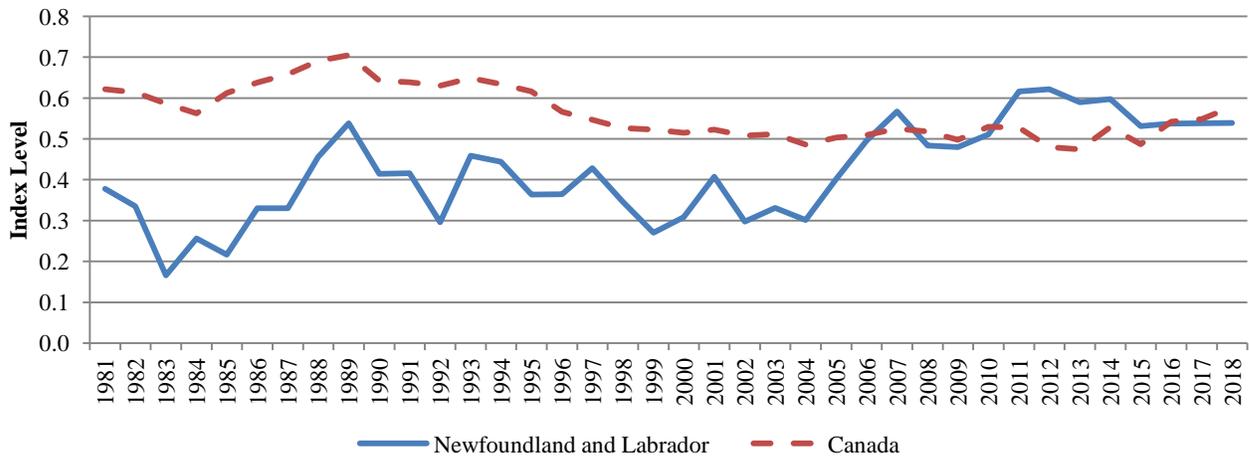
**Chart 40: Index of Economic Inequality by Province, 2018**



Source: IEWB Database 2018, Table 3

Newfoundland and Labrador’s score for the index of economic equality generally increased over the period (Chart 41). The province’s score rose 0.16 points from its 1981 score of 0.378, though it fell below Canada’s score in 2018. The index grew 0.96 per cent annually from 1981 to 2018 and, consistent with the index of poverty, experienced the highest growth between 2000 and 2008 at a rate of 5.79 per cent per year.

**Chart 41: Index of Economic Equality in Newfoundland and Canada, 1981-2018**



Source: IEWB Database 2018, Table 3

Table 8 summarizes the findings for the components of the economic equality domain in Newfoundland and Labrador from 1981 to 2018. By 2018, only the province's index of income equality exceeded the national score. However, scores for both the index of poverty and index of economic equality in 2018 were significantly higher than their 1981 levels. Among the five years examined in Table 7, all three indexes had their highest scores relative to Canada's in 2014, signifying deterioration by 2018.

Newfoundland and Labrador enjoyed better economic equality by the end of the period. The index of income equality deteriorated between 1981 and 2018, but the index of poverty improved, which drove the improvement in the index of economic equality. All indexes declined in the 1981-2000 sub-period, but grew in the 2000-2018 sub-period. The index of poverty and index of economic equality had the highest growth between 2000 and 2008, while the index of income equality had its greatest rate of improvement between 2008 and 2014. At the end of the period between 2014 and 2018, however, all three indexes saw deterioration.

**Table 8: Summary of Components of the Economic Equality Domain in Newfoundland and Labrador, 1981-2018**

**Panel A: Index Level**

	1981	2000	2008	2014	2018
	<b>Index Level</b>				
Index of Income Equality	0.544	0.399	0.407	0.472	0.439
Index of Poverty	0.322	0.278	0.509	0.639	0.572
Index of Economic Equality	0.378	0.308	0.484	0.597	0.539

**Panel B: Relative to Canada**

	1981	2000	2008	2014	2018
	<b>Per Cent</b>				
Index of Income Equality	101.5	143.7	134.9	144.7	112.4
Index of Poverty	49.6	46.8	86.3	107.1	89.2
Index of Economic Equality	60.8	59.9	93.4	112.9	93.1

**Panel C: Compound Annual Growth Rates**

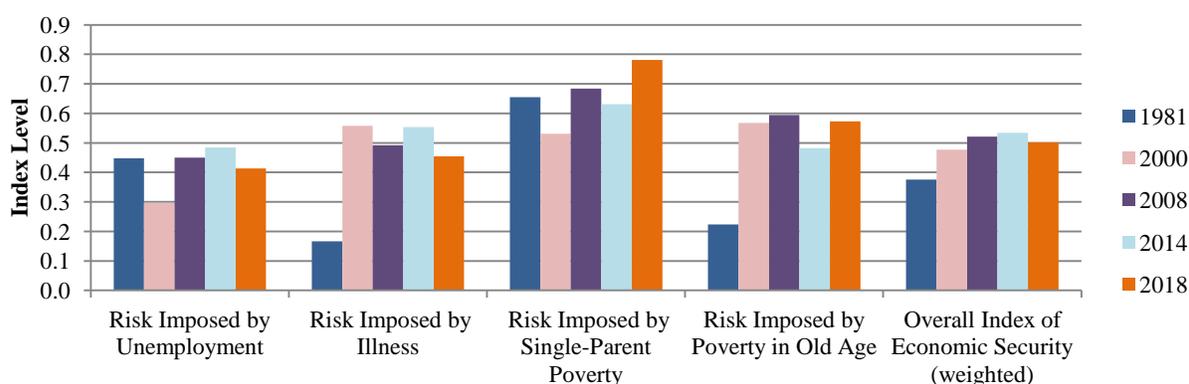
	1981-2018	1981-2000	2000-2018	2000-2008	2008-2018	2008-2014	2014-2018
	<b>Per Cent</b>						
Index of Income Equality	-0.58	-1.62	0.54	0.25	0.77	2.49	-1.76
Index of Poverty	1.56	-0.78	4.09	7.86	1.17	3.85	-2.72
Index of Economic Equality	0.96	-1.07	3.15	5.79	1.08	3.57	-2.53

Source: IEWB Database 2018, Table 3

## VI. Trends in Economic Security Domain

The economic security domain is the final and most complex domain of the Index of Economic Well-being.<sup>18</sup> Its methodology has evolved since the Index’s introduction in 1998. The economic security domain has four components concerning the risks to economic well-being: risk imposed by unemployment, financial risk from illness, risk from single-parent poverty, and risk of poverty in old age. Chart 42 compares the components of the economic security domain in Newfoundland and Labrador between 1981 and 2018.<sup>19</sup>

**Chart 42: Components of the Economic Security Domain in Newfoundland and Labrador, 1981, 2000, 2008, 2014, 2018**



Source: IEWB Database 2018, Table 4, 5, 6, 7, & 8

### A. Risk from Unemployment

Three variables comprise the index of the risk imposed by unemployment: the unemployment rate, the proportion of the unemployed receiving EI benefits, and the proportion of earnings that are replaced by EI benefits. We multiply the proportion of the unemployed receiving benefits and the proportion of earnings to obtain an index for financial protection from unemployment. To generate the index of risk from unemployment, we sum the scaled unemployment rate, which is assigned a weight of four-fifths, and scaled financial protection for unemployment, which is assigned a weight of one-fifth.<sup>20</sup> As a result, the unemployment rate is the primary driver of changes in the index of risk from unemployment.

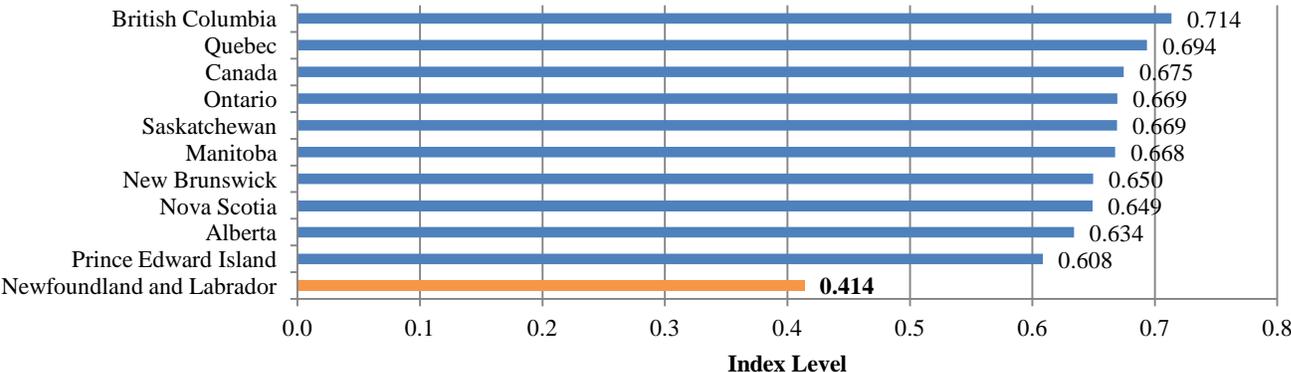
<sup>18</sup> See Heslop (2009) for a discussion of the role of economic security in an index of economic well-being and an assessment of the CSLs approach to the measurement of economic security.

<sup>19</sup> As linear scaling procedures are applied to all sub-components, an increase in any of the indexes translates to less risk, an improved outcome.

<sup>20</sup> The unemployment rate receives a heavier weight, as it signifies the relative ease of obtaining employment. Compared to financial protection from unemployment, the unemployment rate is a more important indicator of economic security for most of the working population.

In 2018, the index of security from unemployment in Newfoundland and Labrador scored 0.414, the lowest value among the provinces (Chart 43). In Canada, those in Newfoundland and Labrador faced the highest risk to economic security imposed by unemployment. Newfoundland’s score was significantly lower than the rest of Canada, whose scores ranged from 0.608 to 0.714. The province had the highest unemployment rate in Canada in 2018 at 13.6 per cent, which explains Newfoundland and Labrador’s low score for the risk from unemployment.

**Chart 43: Index of Security from the Risk Imposed by Unemployment by Province, 2018**



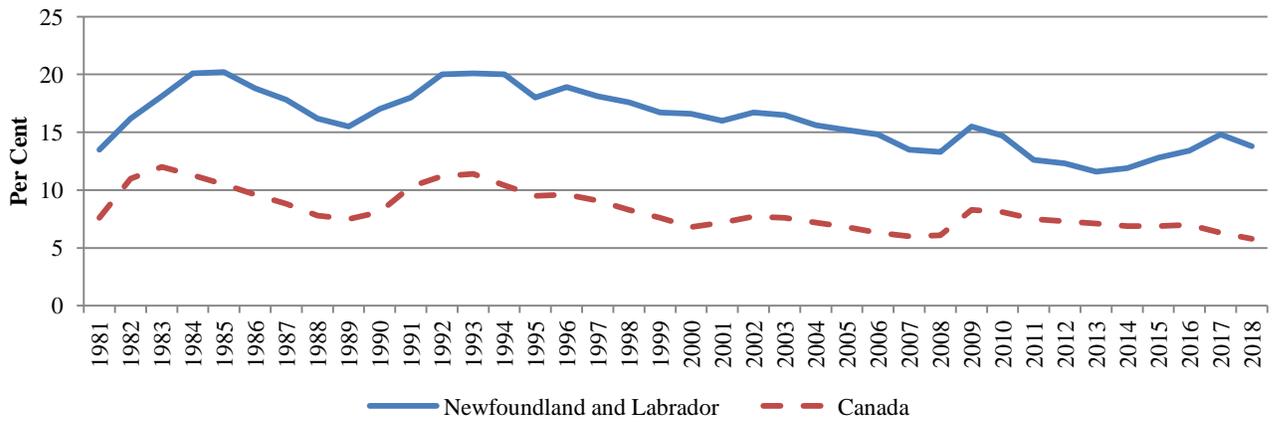
Source: IEWB Database 2018, Table 4

The index of risk from unemployment in Newfoundland and Labrador decreased 0.034 points from 1981 to 2018 and remained below Canada’s score throughout the period (Chart 44). This decrease was driven by an increase in the unemployment rate and decrease in financial protection for unemployment. The unemployment rate increased slightly by 0.30 percentage points from 13.5 per cent in 1981 to 13.8 per cent in 2018. However, after peaking in 1993 at 20.1 per cent, the unemployment rate in Newfoundland and Labrador generally declined until 2014, which suggests a trend of improvement towards the end of the period. While the earnings replacement rate increased 4.97 percentage points from 35.1 per cent in 1981 to 40.0 per cent in 2018, the EI coverage rate declined by 38.2 percentage points from 137.4 per cent in 1981 to 99.2 per cent in 2018. As a result, the scaled value of financial protection for unemployment decreased 0.085 points between 1981 and 2018.

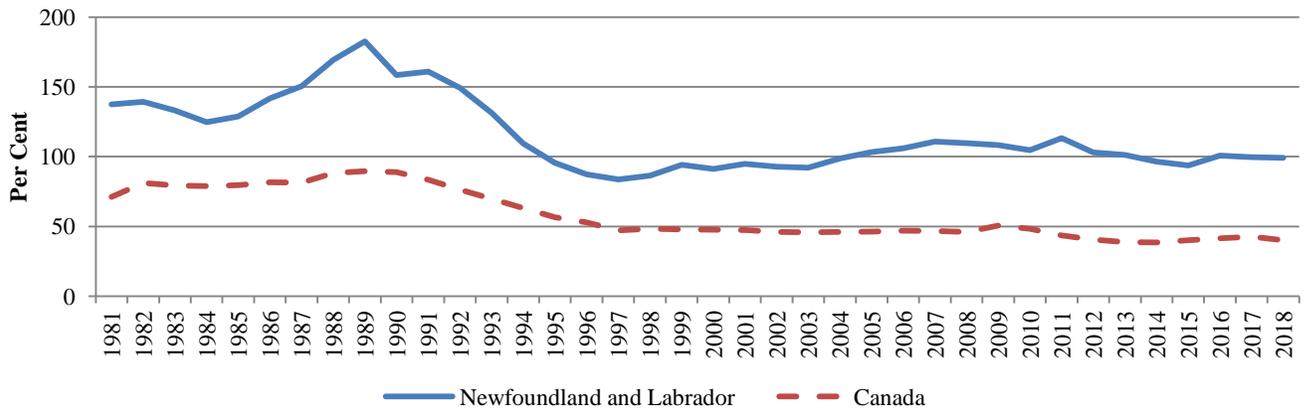
Although Newfoundland and Labrador’s index of risk from unemployment declined over the period, this deterioration occurred mostly before 2000 (Chart 44). Between 1981 and 2000, the index declined at a rate of 2.13 per cent per year, while it grew 1.85 per cent per year between 2000 and 2018. The index grew the fastest during the 2000-2008 sub-period at an impressive 5.32 per cent per year. However, between 2014 and 2018, the index of risk from unemployment once again deteriorated, declining 3.86 per cent annually.

**Chart 44: Risk from Unemployment and its Subcomponents in Newfoundland and Canada, 1981-2018**

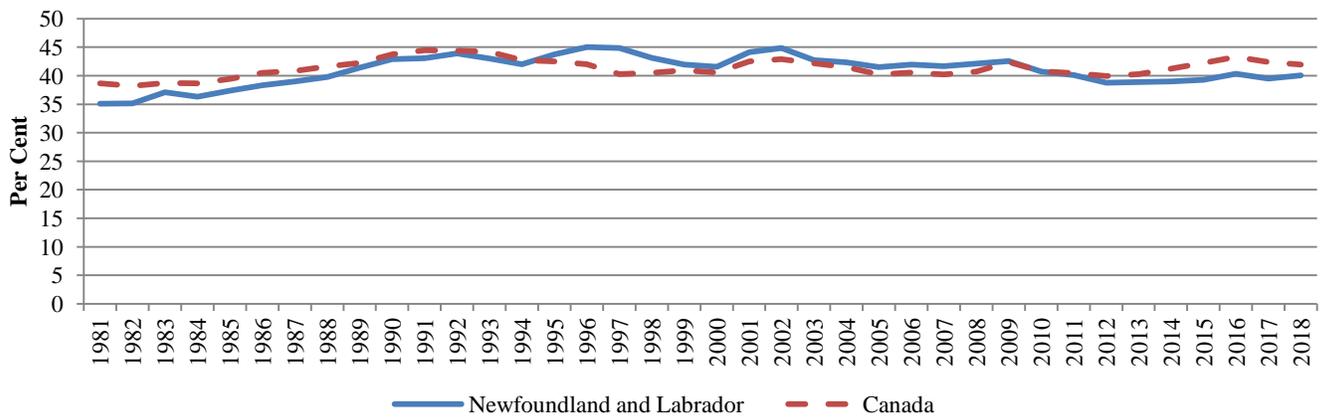
**Panel A: Unemployment Rate**



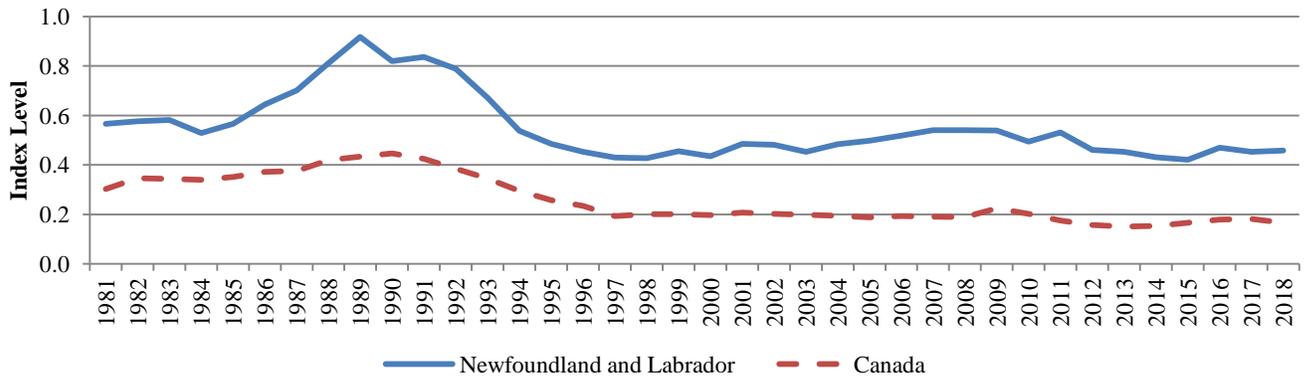
**Panel B: EI Coverage Rate**



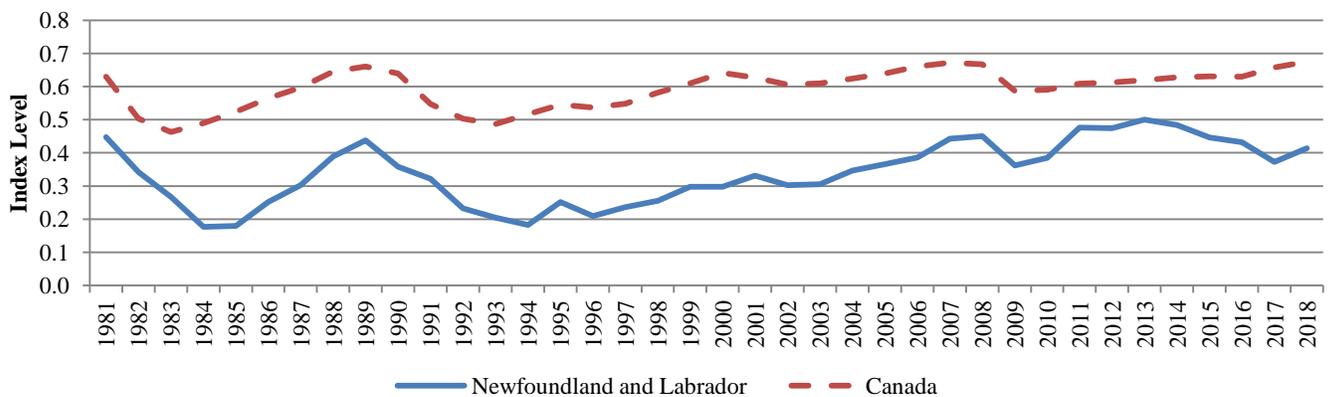
**Panel C: Earnings Replacement Rate**



**Panel D: Financial Protection for Unemployment**



**Panel E: Index of Risk from Unemployment**



Source: IEWB Database 2018, Table 4

**B. Financial Risk from Illness**

Canadian citizens have access to universal health care, which provides medically necessary procedures free of charge. As a result, they face significantly less risk than citizens in countries without universal coverage, such as the United States. However, Canadians still face significant private expenditures on health care, as many services, such as dental care, pharmaceuticals, and medically unnecessary procedures, are not covered. These expenditures, which disproportionately affect low-income Canadians, are rapidly rising. We use scaled private medical expenditures as a proxy for the risk imposed by illness.<sup>21</sup>

In 2018, the index of security from the risk imposed by illness in Newfoundland and Labrador was 0.455, the fourth highest score in Canada (Chart 45). With a relatively high level

<sup>21</sup> Private expenditures include all out-of-pocket expenditures made by individuals for the following: health care goods and services; health insurance claims paid to individuals by commercial and not-for-profit insurance firms, as well as the costs of administering those claims; non-patient revenues received by health care institutions, such as donations and investment income; private spending on health-related capital construction and equipment; and health research funded by private sources.

of security from illness, Newfoundland and Labrador was the outlier in the Atlantic region. The other Atlantic provinces received the lowest scores for risk from illness.

**Chart 45: Index of Security from the Risk Imposed by Illness by Province, 2018**

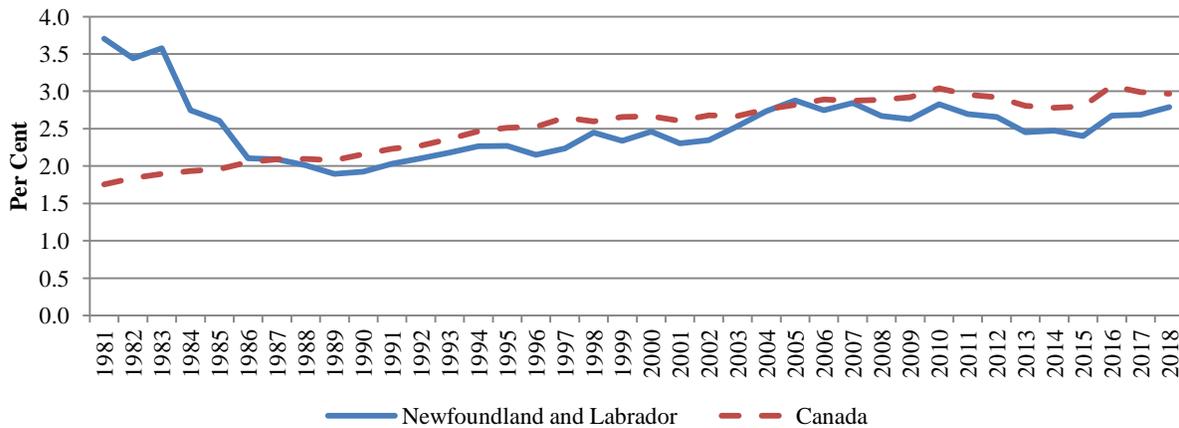


Source: IEWB Database 2018, Table 5

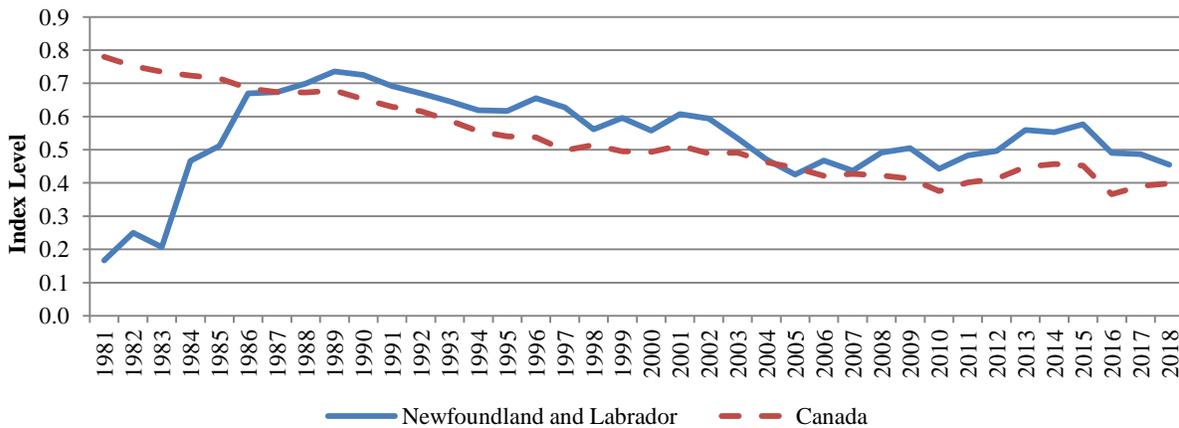
Newfoundland and Labrador’s high score for risk from illness stemmed from decreasing private medical expenditures between 1981 and 2018 (Chart 46). Over the period, the share of private medical expenditures declined 0.92 percentage points from 3.70 per cent in 1981 to 2.79 per cent of income in 2018, falling below the national level. As a result, the index of risk from illness increased 0.29 points from 0.166 in 1981 to 0.455 in 2018. In comparison, Canada’s private medical expenditures increased 1.21 percentage points from 1.75 per cent in 1981 to 2.97 per cent of income in 2018.

While the index of risk from illness in Newfoundland and Labrador increased over the period, growth was concentrated between 1981 and 2000. During this sub-period, the index increased 6.58 per cent per year, but between 2000 and 2018, it decreased 1.12 per cent per year. Since its lowest level of 1.89 per cent in 1989, the share of private medical expenditures in personal income has slowly increased, which explains the decrease in the index of risk from illness after 2000. Between 2014 and 2018, the index declined at a rate of 4.78 per cent annually, which suggests that security from illness will continue to face a downward trend.

**Chart 46: Risk from Illness in Newfoundland and Canada, 1981-2018**  
**Panel A: Private Non-Reimbursed Medical Expenditures as a Proportion of Personal Disposable Income**



**Panel B: Index of Risk from Illness (Scaled Private Medical Expenditures)**



Source: IEWB Database 2018, Table 5

### C. Risk from Single-Parent Poverty

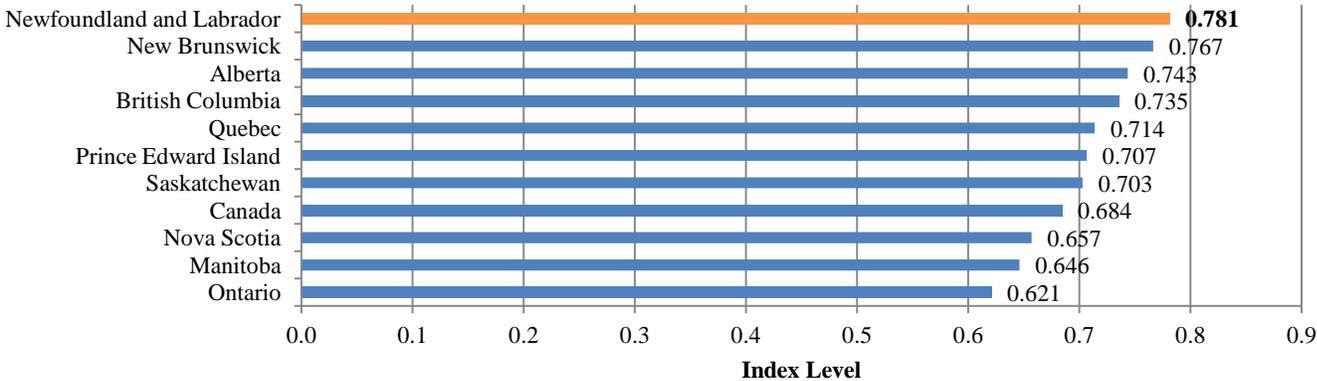
The index of security from the risk imposed by single-parent poverty consists of three variables: the divorce rate, the poverty rate for lone parent families, and the poverty gap for these families.<sup>22</sup> The poverty rate is the proportion of lone-parent families whose total after-tax incomes fall below fifty percent of the median equivalent income, and the poverty gap is the average difference between the poverty line and the incomes of those families. We multiply the three variables to generate the index of the risk from single-parent poverty.

In 2018, Newfoundland and Labrador scored 0.781 for the index of risk from single-parent poverty (Chart 47). The province enjoyed the highest level of security from single-parent

<sup>22</sup> The divorce rate is included as divorce pushes many people, especially women, into poverty.

poverty in Canada. This high score was likely driven by the province’s relatively low divorce rate of 0.47 per cent (the lowest in Canada) and poverty gap of 23 per cent in 2018.

**Chart 47: Index of Security from the Risk Imposed by Single-Parent Poverty by Province, 2018**



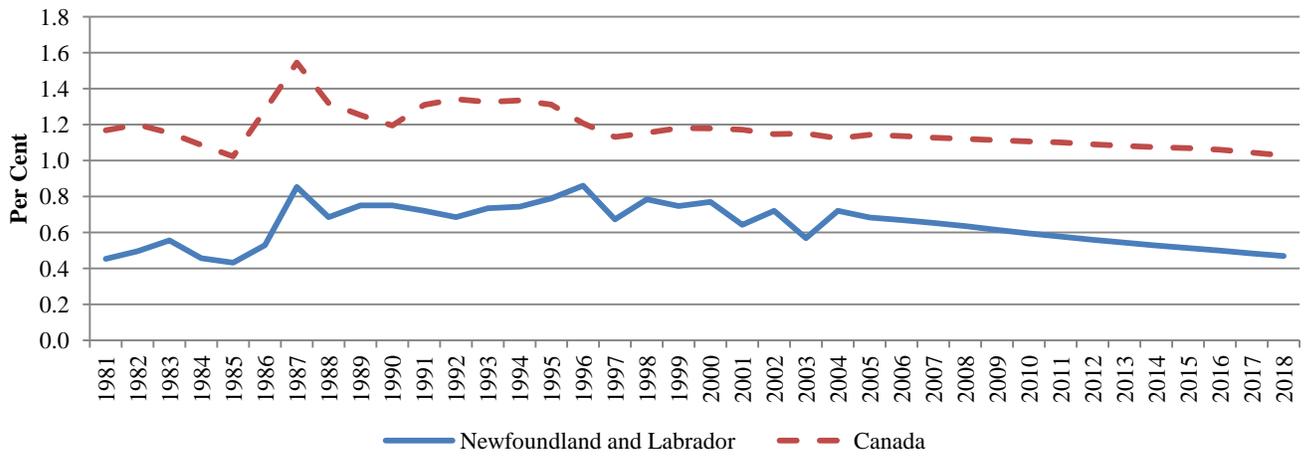
Source: IEWB Database 2018, Table 6

Between 1981 and 2018, the index of the risk from single-parent poverty in Newfoundland and Labrador increased 0.13 points from 0.655 in 1981 to 0.781 in 2018 (Chart 48). Improvements in the poverty rate and poverty gap among single families largely accounted for the overall increase in the index. Despite remaining above the national level throughout the period, the province’s poverty rate decreased 0.3 percentage points or 0.02 per cent annually from 46.3 per cent in 1981 to 46.0 per cent in 2018. Most impressively, the province’s poverty rate saw a substantial decrease of 22.70 percentage points or 1.84 per cent annually from 45.7 per cent in 1981 to 23 per cent in 2018. In comparison, Canada’s poverty gap decreased much less at 10.6 percentage points or 0.88 per cent annually. The divorce rate in Newfoundland and Labrador increased slightly by 0.02 percentage points since its 1981 rate of 0.453 per cent, but the divorce rate was significantly lower than Canada’s throughout the period.

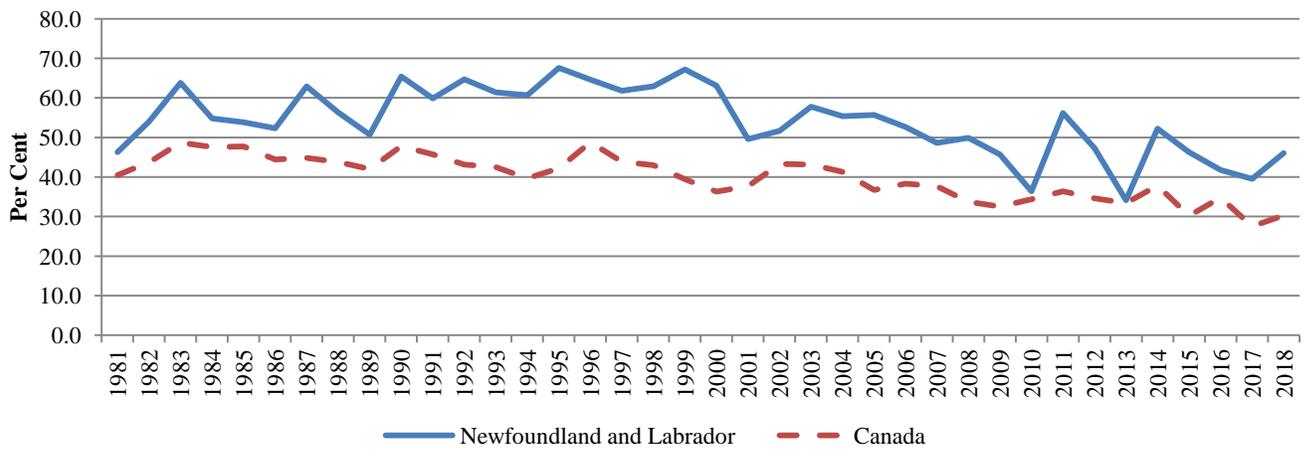
Growth in the index of risk from single-parent poverty was concentrated between 2000 and 2018, as the index deteriorated between 1981 and 2000 at a rate of 1.10 per cent annually (Chart 48). In the 2000-2018 sub-period, the index grew 2.17 per cent per year and consistently surpassed Canada’s score after 2000. The index experienced the fastest growth between 2014 and 2018 at a rate of 5.48 per cent annually.

**Chart 48: Risk from Single-Parent Poverty and its Subcomponents in Newfoundland and Canada, 1981-2018**

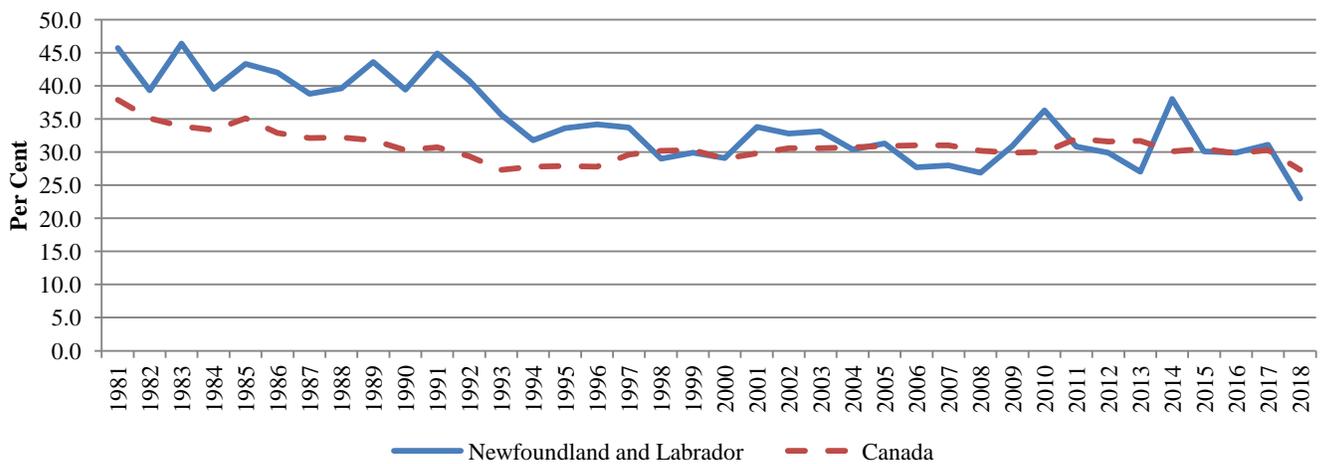
**Panel A: Divorce Rate**



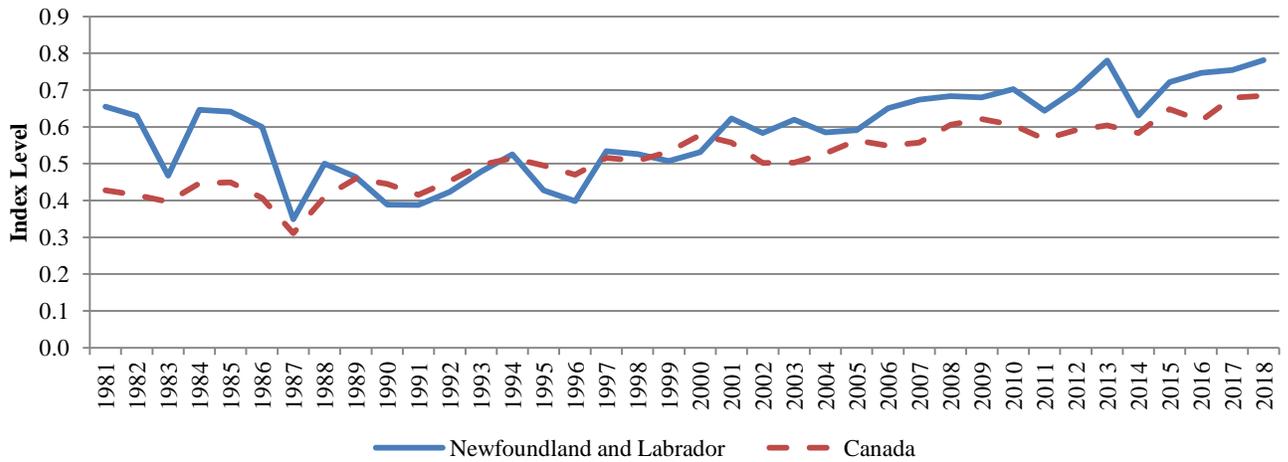
**Panel B: Poverty Rate among Single-Parent Families**



**Panel C: Poverty Gap among Single-Parent Families**



**Panel D: Index of Risk from Single-Parent Poverty**



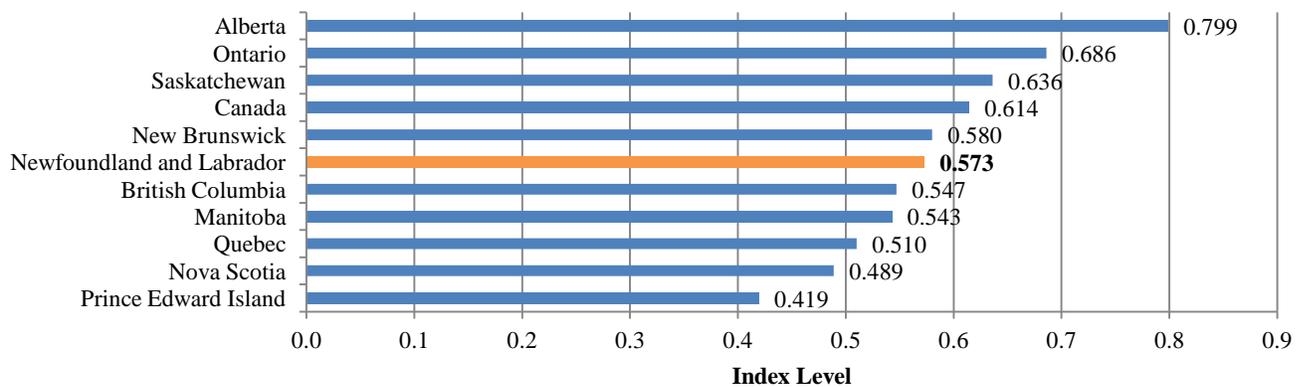
Source: IEWB Database 2018, Table 6

**D. Risk from Poverty in Old Age**

This final component of the economic security domain is the risk of poverty in old age. As data on old age poverty rates are not available, this component uses the poverty rate and poverty gap of families headed by persons 65 and over as a proxy. We scale and multiply these variables by a constant of 1.89 to obtain the index of security from risk imposed by poverty in old age.

In 2018, Newfoundland and Labrador’s index of risk from poverty in old age scored 0.573, ranking fifth of the provinces (Chart 49). In the Atlantic region, the province ranked second, falling a few points behind New Brunswick. Nova Scotia and Prince Edward Island, however, had the lowest levels of security from poverty in old age.

**Chart 49: Index of Security from the Risk Imposed by Poverty in Old Age by Province, 2018**



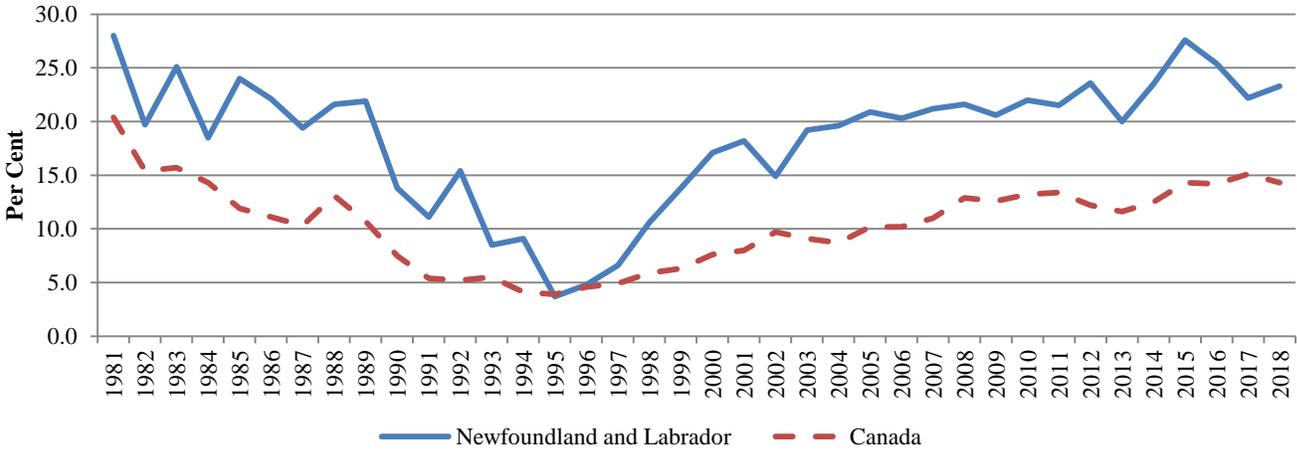
Source: IEWB Database 2018, Table 7

Although Newfoundland and Labrador had an average ranking among the provinces, its growth in the index of risk from old-age poverty exceeded that of Canada’s (Chart 50). From 1981 to 2018, the province’s index improved 0.35 points or 2.57 per cent annually from 0.224 in 1981 to 0.573 in 2018; at the national level, the index grew 0.27 points or 1.59 per cent annually over the period. Substantial declines in the poverty rate and poverty gap among the elderly in Newfoundland and Labrador fueled the improvement in the index. Between 1981 and 2018, the poverty rate for the elderly declined 4.70 percentage points or 0.5 percent annually from 28.0 per cent in 1981 to 23.3 per cent in 2018, though it remained above Canada’s for most of the period.<sup>23</sup> The poverty gap among the elderly experienced the most significant decline at 6.0 percentage points or 1.21 per cent per year, achieving the lowest gap in Canada by 2018.

Newfoundland and Labrador saw the fastest growth in the index of risk from poverty in old age between 1981 and 2000 at a rate of 5.02 per cent per year (Chart 50). Growth between 2000 and 2018 was still positive but slowed considerably to 0.05 per cent annually. This slow-down was driven by a decrease in the 2008-2014 sub-period at 3.42 per cent per year. However, between 2014 and 2018, the province’s score in the index grew 4.38 per cent per year, signaling a return to growth.

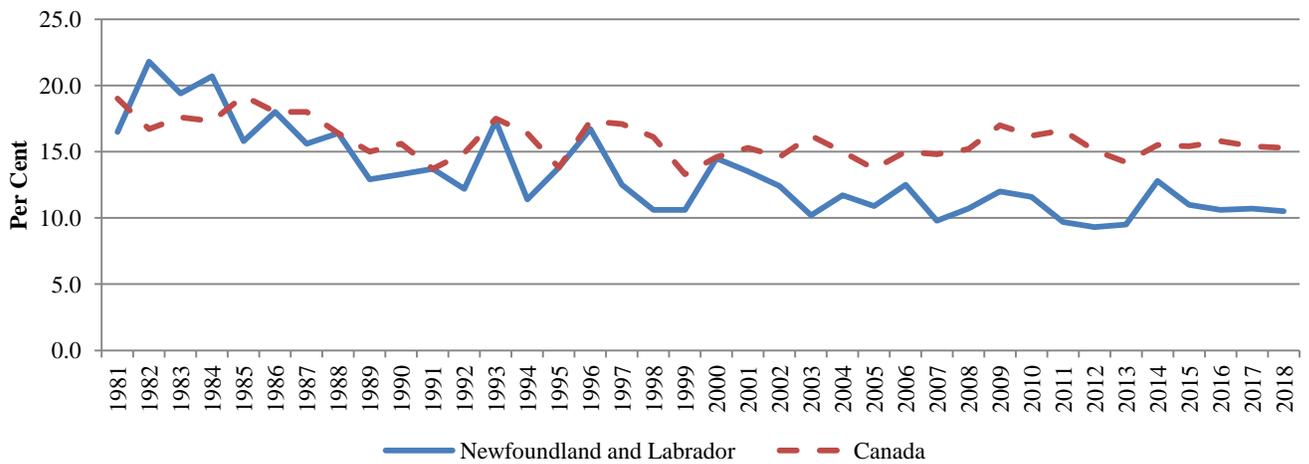
**Chart 50: Risk from Poverty in Old Age and its Subcomponents in Newfoundland and Canada, 1981-2018**

**Panel A: Poverty Rate for the Elderly**

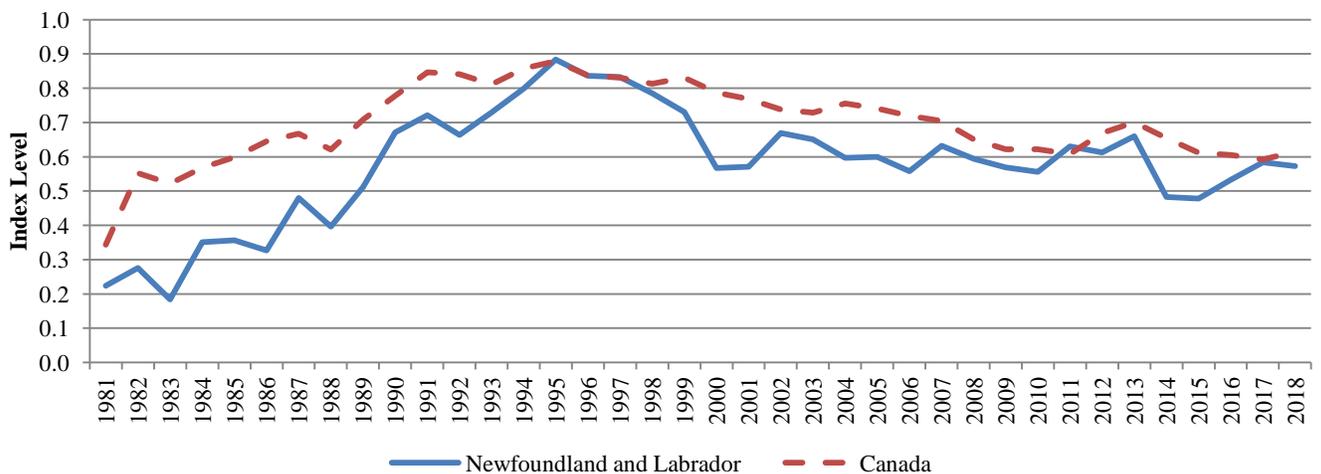


<sup>23</sup> Within this period, growth in the poverty rate exhibited much variation. This volatility reflects how the poverty rate from LIM is a relative measure. After 1995, the poverty rate for the elderly increased, as the rising real income of the general population experienced faster growth than the income of the elderly, which follows the inflation rate. See Andrews (2015) for further discussion on the linkages between the IEWB and the use of absolute versus relative measures of poverty.

**Panel B: Poverty Gap among the Elderly**



**Panel C: Index of Risk from Poverty in Old Age**



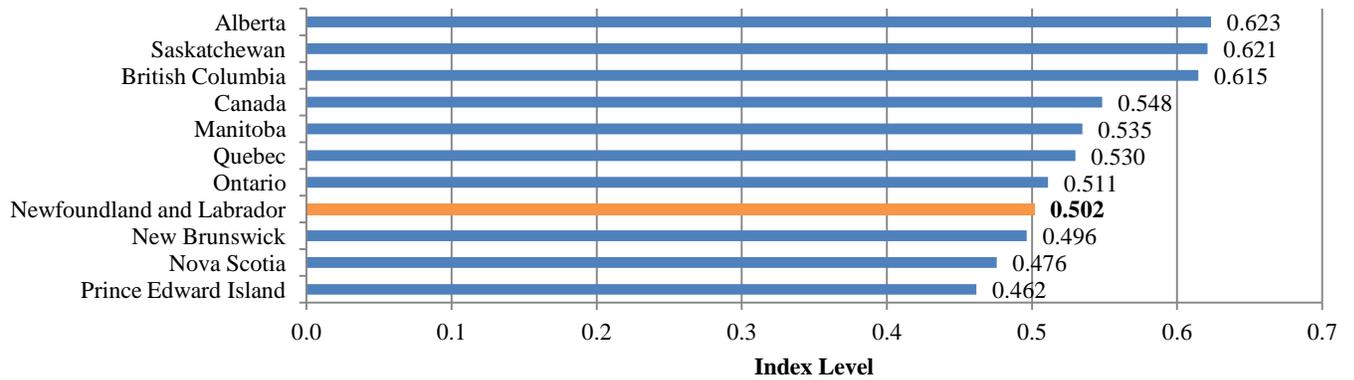
Source: IEWB Database 2018, Table 7

## E. Index of Economic Security

We generate the scaled index for the domain of economic security by aggregating the scaled values of the four components. The contribution of each component is the product of its scaled value and weight. The weights used for this aggregation procedure are constructed from the relative sizes of the populations subject to each risk.

In 2018, the index of the economic security domain in Newfoundland and Labrador was 0.502, ranking seventh in Canada (Chart 51). Within the Atlantic region, Newfoundland and Labrador had the highest level of economic security. The Atlantic provinces had the lowest scores in Canada for this index.

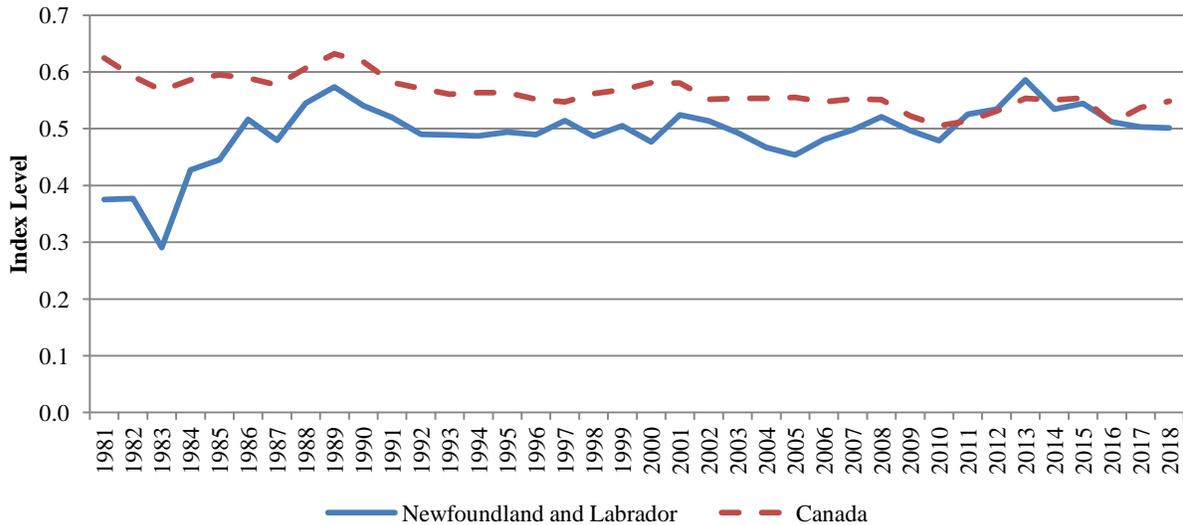
**Chart 51: Index of Economic Security by Province, 2018**



Source: IEWB Database 2018, Table 8

The index of economic security in Newfoundland and Labrador improved 0.126 points between 1981 and 2018, though it remained below Canada’s level by the end of the period (Chart 52). The index grew overall at an annual rate of 0.79 per cent from 1981 to 2018, but decreased by 1.56 per cent per year between 2014 and 2018.

**Chart 52: Index of Economic Security by Province, 1981-2018**



Source: IEWB Database 2018, Table 8

Table 9 summarizes the findings for the components of the economic security domain in Newfoundland and Labrador from 1981 to 2018. By 2018, the indexes of the risk from illness and risk from single-parent poverty exceeded their respective national levels. The index of the risk from poverty in old age came close at 93.2 per cent of Canada’s. However, the index of the risk from unemployment was only 61.3 per cent of Canada’s, which drove down the overall index of economic security to 91.5 per cent of the national level.

Newfoundland and Labrador achieved a higher level of economic security by 2018 (Table 9). The indexes of risk from illness and risk from old-age poverty grew the fastest in the 1981-2000 sub-period, while the risk from unemployment and risk from single-parent poverty saw the most improvement in the 2000-2018 sub-period. The overall index of economic security experienced the most improvement between 1981 and 2000. However, between 2014 and 2018, the index deteriorated at an annual rate of 1.56 per cent, which was driven by lower security from risk imposed by unemployment and illness.

**Table 9: Summary of Consumption Components in Newfoundland and Labrador, 1981-2018**

**Panel A: Index Level**

	1981	2000	2008	2014	2018
	<b>Index Level</b>				
Risk Imposed by Unemployment	0.447	0.297	0.450	0.484	0.414
Risk Imposed by Illness	0.166	0.558	0.492	0.553	0.455
Risk Imposed by Single-Parent Poverty	0.655	0.531	0.684	0.631	0.781
Risk Imposed by Poverty in Old Age	0.224	0.567	0.594	0.483	0.573
Index of Economic Security (weighted)	0.375	0.477	0.521	0.534	0.502

**Panel B: Relative to Canada**

	1981	2000	2008	2014	2018
	<b>Per Cent</b>				
Risk Imposed by Unemployment	71.0	46.4	67.5	77.1	61.3
Risk Imposed by Illness	21.3	113.1	116.3	121.0	114.2
Risk Imposed by Single-Parent Poverty	153.1	91.9	112.9	108.1	114.1
Risk Imposed by Poverty in Old Age	65.2	72.1	91.4	73.7	93.2
Index of Economic Security (weighted)	60.1	82.1	94.5	97.0	91.5

**Panel C: Compound Annual Growth Rates**

	1981-2018	1981-2000	2000-2018	2000-2008	2008-2018	2008-2014	2014-2018
	<b>Per Cent</b>						
Risk Imposed by Unemployment	-0.21	-2.13	1.85	5.32	-0.84	1.22	-3.86
Risk Imposed by Illness	2.76	6.58	-1.12	-1.56	-0.77	1.99	-4.78
Risk Imposed by Single-Parent Poverty	0.48	-1.10	2.17	3.21	1.34	-1.33	5.48
Risk Imposed by Poverty in Old Age	2.57	5.02	0.05	0.58	-0.37	-3.42	4.38
Index of Economic Security (weighted)	0.79	1.27	0.28	1.11	-0.38	0.42	-1.56

Source: IEWB Database 2018, Table 8

## VII. Conclusion

This report presents estimates of the Index of Economic Well-being for Newfoundland and Labrador from 1981 to 2018. Since 1981, the IEWB for Newfoundland and Labrador has improved significantly. The overall IEWB rose 0.270 points from 0.301 in 1981 to 0.571 in 2018 in Newfoundland and Labrador. This improvement amounts to an impressive 89.9 per cent change over the period, or growth of 1.75 per cent per year.

However, on a less positive note, growth in the IEWB for Newfoundland and Labrador was higher in the 1981-2000 sub-period. Annual growth in the 1981-2000 sub-period was 1.87 per cent, which was slightly higher than the growth in the 2000-2018 period at 1.62 per cent per year. Although the IEWB experienced the fastest growth during the 2000 to 2008 sub-period at 4.99 per cent per year, it declined after 2008, reflecting the collapse in oil prices at the time. In particular, the IEWB for Newfoundland and Labrador saw the worst growth at the end of the period between 2014 and 2018 at negative 1.36 per cent per year.

The overall increase in economic well-being was driven by robust growth in consumption and stocks of wealth. The index of consumption increased 0.570 points or 5.72 per cent per year from 0.083 in 1981 to 0.653 in 2018. Significant increases in personal consumption and government expenditures mainly accounted for the growth in the consumption domain over the period. However, due to a decrease in the value of unpaid work and increase in regrettable expenditures after 2008, the consumption domain experienced much slower growth in the 2000-2018 sub-period compared to the 1981-2000 sub-period (2.57 per cent versus 5.72 per cent).

The wealth domain had the second highest growth among the components of the IEWB. The index of wealth increased 0.224 points or 1.30 per cent per year from 0.366 points in 1981 to 0.590 points in 2018. However, growth in the wealth domain occurred mostly in the 1981-2000 sub-period, due to instability in the stock of natural resources. Between 2008 and 2018, the stock of natural resources deteriorated 17.65 per cent per year, signifying the impact of the plunge in oil prices on the province during this period. Given the province's dependence on natural resources, and more specifically oil, the wealth domain in Newfoundland and Labrador fell at a rate of 4.31 per cent per year from 2008 to 2018.

The domains of economic equality and economic security also improved, though less significantly than the other two domains. The index of economic equality grew by 0.161 points or 0.96 per cent per year from 0.378 in 1981 to 0.539 in 2018. This improvement was driven by growth in the index of poverty, as the index of income inequality deteriorated over the period. The index of economic security showed the least improvement of the IEWB components. The index of economic security rose 0.126 points or 0.79 per cent annually from 0.375 in 1981 to

0.502 in 2018, largely as a result from improvements in the risk imposed by illness and poverty in old age. The risk imposed by unemployment worsened over the period, which drove down the index of economic security for Newfoundland and Labrador.

Among the provinces, Newfoundland and Labrador enjoyed high rankings for the IEWB in terms of both levels and growth (Exhibit 5). For the overall IEWB in 2018, Newfoundland and Labrador ranked fourth among the ten provinces and received the highest score for the index of wealth. The province did not fare as strongly for the indexes of consumption, economic equality, and economic security, ranking seventh among the provinces in all three. Most impressive were Newfoundland and Labrador’s rankings for growth. Apart from the index of economic equality (in which the province ranked fourth), Newfoundland and Labrador had the highest growth rates from 1981 to 2018 for the overall IEWB and indexes of consumption, wealth, and economic security. These findings indicate that economic well-being in Newfoundland and Labrador has achieved significant improvement since 1981.

**Exhibit 5: Ranking by Index of Economic Well-being and its Components, Canada and the Provinces**  
**Panel A: Levels**

Levels in 2018					
Rank	Index of Economic Well-being	Index of Consumption	Index of Wealth	Index of Economic Equality	Index of Economic Security
1	British Columbia	Alberta	Newfoundland and Labrador	Alberta	Alberta
2	Alberta	Ontario	British Columbia	New Brunswick	Saskatchewan
3	Ontario	British Columbia	Quebec	British Columbia	British Columbia
4	Canada	Canada	Ontario	Prince Edward Island	Canada
5	Newfoundland and Labrador	Nova Scotia	Canada	Quebec	Manitoba
6	Quebec	Manitoba	Manitoba	Canada	Quebec
7	Manitoba	Quebec	Saskatchewan	Ontario	Ontario
8	Saskatchewan	Newfoundland and Labrador	New Brunswick	Newfoundland and Labrador	Newfoundland and Labrador
9	New Brunswick	Saskatchewan	Alberta	Manitoba	New Brunswick
10	Nova Scotia	Prince Edward Island	Nova Scotia	Saskatchewan	Nova Scotia
11	Prince Edward Island	New Brunswick	Prince Edward Island	Nova Scotia	Prince Edward Island

**Panel B: Growth Rate**

<b>Growth Rates, 1981-2018</b>					
<b>Rank</b>	<b>Index of Economic Well-being</b>	<b>Index of Consumption</b>	<b>Index of Wealth</b>	<b>Index of Economic Equality</b>	<b>Index of Economic Security</b>
1	Newfoundland and Labrador	Newfoundland and Labrador	Newfoundland and Labrador	New Brunswick	Newfoundland
2	New Brunswick	New Brunswick	Quebec	Saskatchewan	Prince Edward Island
3	Prince Edward Island	Quebec	Ontario	Prince Edward Island	British Columbia
4	Quebec	Prince Edward Island	British Columbia	Newfoundland and Labrador	New Brunswick
5	Manitoba	Manitoba	Canada	Manitoba	Quebec
6	British Columbia	Ontario	Manitoba	Alberta	Manitoba
7	Nova Scotia	Canada	Nova Scotia	Quebec	Alberta
8	Canada	Nova Scotia	New Brunswick	Nova Scotia	Canada
9	Saskatchewan	British Columbia	Saskatchewan	British Columbia	Saskatchewan
10	Ontario	Saskatchewan	Alberta	Canada	Nova Scotia
11	Alberta	Alberta	Prince Edward Island	Ontario	Ontario

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